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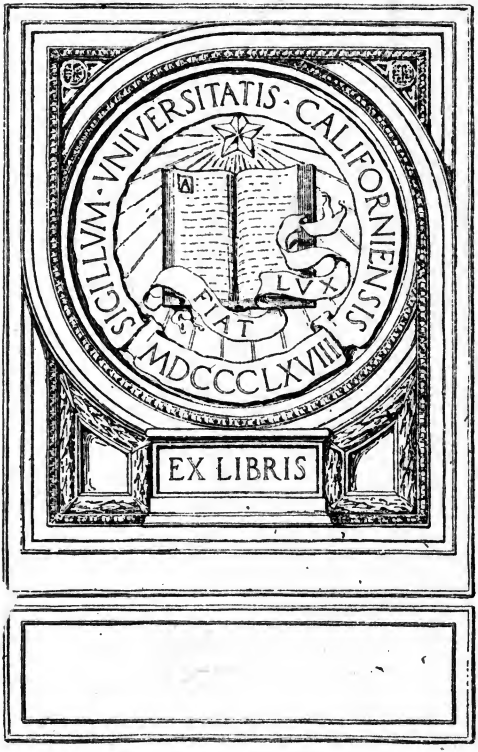
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COMPANY TRAINING

(*Infantry*)

By

CAPTAIN CROMWELL STACEY

U. S. Infantry

Inspector-Instructor

FRANKLIN HUDSON PUBLISHING CO.

KANSAS CITY, MO.

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PREFACE.

The man who comes forward in time of war to serve his country shows that he is courageous, patriotic, and sincere.

But the man who studies, drills, and prepares himself in time of peace so that he can serve his country in time of war shows that he possesses the above qualities and more; it shows that his patriotism is practical and sincere; it shows that his bravery is real, and not mere hysteria or transient enthusiasm; it shows that he has red blood in his veins, and is willing to make sacrifices for an ideal. Of such stuff true soldiers are made.

It frequently takes more courage to train for war in time of peace than it does to enlist when the whole country is ablaze with martial hysteria.

May the people of the United States accord to the men who serve in the National Guard the support which they have a right to expect and in fact demand for the self-sacrificing devotion which prompts them to give up their time and money that they may be able to serve their country usefully when it needs them. To these men this little book is dedicated.

CROMWELL STACEY,
Captain U. S. Infantry, Inspector-Instructor.

INTRODUCTION.

In my association with the officers of the National Guard of several States, extending over a period of about eight years, it has been my good fortune to have made many warm friends among them. I have assisted them whenever possible, and, as a reward, have secured their confidence. I know the trials and tribulations of the National Guard captains as well as if I had been one myself, and in consequence fully appreciate the terrible handicaps and disadvantages under which they strive to train their companies so that they may be able to take their place on the firing-line when the awful test of war shall come with credit to themselves, their companies, and the Nation.

I fully appreciate the self-sacrificing patriotic devotion which inspires these men in their work—generally without help or appreciation from the people they strive to serve, at great personal and financial sacrifices, which are not dreamed of or appreciated by the people among whom they live and work.

It is at the request of these friends of mine in the Guard that this little book has been written, with the hope that it may further assist them in their great work, and also with the hope that it may prove of help and benefit to other friends and comrades in the Guard whom as yet I have not had the pleasure to meet.

I claim nothing new. The training and handling of military men is a science as old as the world itself, and I believe that training will be necessary so long as human nature remains as it is to-day, and I see no immediate prospect of change.

In my military career of twenty-four years I have received unlimited help from older and more experienced officers, and in writing this little book I am doing only what all good soldiers have done from time immemorial—that is, to help their younger brothers.

In conclusion, I wish to add one word more. I have found the methods outlined herein good in training regulars and National Guardsmen. Many will not need this little book, and in regard to the others, I hope it will help them to prepare our country for war, which will surely come. May we be ready.

CROMWELL STACEY,
Captain U. S. Infantry, Inspector-Instructor.

RULES OF THE GAME.

FOR ENLISTED MEN OF THE NATIONAL GUARD.

1. The first duty of a soldier is loyal, unhesitating obedience. Without this quality an army is no better than a mob. The value of an organization lies in the fact that a thousand men submit their wills to one man and are moved as one man. One hundred disciplined men are always superior to a thousand undisciplined men.

2. Respect your officers. Your lives are in their hands in action and they know more of the game than you do. They frequently know what cards the other fellow has, which you do not, so you cannot tell what cards should be played. It may be necessary that you be sacrificed in order that the fight may be won. Don't be a quitter; play the game. Remember, in war you are only part of a machine, one checker on the board. It may be necessary to lose you in order to win the game.

3. Show respect to your officers at all times. If you do not respect them in time of peace, you will not obey them in time of war, and that means death and disaster. War is not a lady-like game. It is team-work that counts. We want the team to win.

4. Never fail to salute your officers at all times and in all places. Never fail to stand to **attention** when they speak to you or you speak to them. Remember, that is part of the game. Play it like a man, and not like a DUB. Remember, strangers judge you by these signs. Get the reputation of being a fine military organization, and not that of a uniformed mob.

5. When in ranks, stand still; keep your head and eyes straight to the front; don't fix your hat or raise your hands. Those things are the earmarks of a recruit, and trained soldiers notice them instantly. It is part of the game. Play it right.

6. Get the habit of watching your officers and non-commissioned officers for orders. A mistake or misunderstanding of orders in action means defeat and ruin. If you don't develop these qualities in time of peace, you won't do it on the battle-field. Remember, an untrained man on the battle-field stands about as much chance

as a dub in a poker-game. You can't bluff it through with old hands; it will come to a show-down.

7. Remember, you sat in on this game of your own free will and accord. Play it right. Don't be a quitter. Put the same spirit into unpleasant duties that you will into pleasant ones. War is not a pleasant game or one for ladies. It takes strong men to play it right. Most of your duties are not always pleasant, but they are necessary just the same. A nation that has difficulty in getting strong men for soldiers is a decadent one and does not deserve liberty or self-government.

8. Remember, the defense of your State and Nation is in your hands; it is the work of strong men with red blood in their veins. Be careful to do everything to raise the reputation of your organization, and nothing that will injure it. It is an honor to wear the uniform of a soldier of the United States.

CHAPTER I.

COMPANY ADMINISTRATION.

Most National Guard companies have great difficulty in keeping their records up to date; this is usually due to two causes: one, lack of system, and the other, carelessness. Most officers and men have the time if they go at the work systematically.

The first thing that you must do is to organize your company office properly; in order to do this you must have an orderly-room, as the captain's office in the regular service is called; this must be a room to which enlisted men have access only when they are sent for or wish to see the captain or first sergeant on business. The frequent practice of having the orderly-room in the company-room (enlisted men's room) or in the store-room is bad. The captain and the clerks cannot keep their records properly or do their work without annoyance or interference from the men of the company. Work under these conditions is impossible.

Having secured a room where you can work in peace and quiet, the next thing to do is to secure places at which the office force can work. Expensive desks are not necessary. A good solid pine table with plain pine pigeon-holes, blotters, inkstands, pens, and paper is all that is necessary. There should also be boxes in which the company retained papers can be systematically kept. There should be a table for the captain, one for each of his lieutenants, one for the first sergeant, and one for the company clerk. Each should have its set of pigeon-holes properly marked to show the purpose for which used; these pigeon-holes should be marked as follows: Finished Business, Unfinished Business, Miscellaneous, From the Adjutant General, To the Adjutant General, To Be Filed, etc. After you get your office organized, many other headings will suggest themselves to you. The captain should have at least twelve pigeon-holes to his desk, and the first sergeant and company clerk an equal number; the lieutenants should have at least six, and ten would be better. No man can do his work properly or take interest in his work unless he has a nice, clean, orderly place in which to work.

It is essential that lieutenants have a place to do their clerical work. The average lieutenant in the Guard seems to think that he has done his whole duty when he is present at drill. It never occurs to him, and rarely to his captain, that he should take an active interest in the workings of the company **and be familiar with all the correspondence and interior workings of the company.** Keep your lieutenants in touch with all the work, so that if you are absent or sick, they will be able to take charge immediately and carry on the work or answer any correspondence that comes in. An efficient company of infantry should be so organized that any man, from the captain down to the cook, can drop out and not disorganize the outfit. If your company is not run in this manner, it is not efficient. Make your lieutenants **work.** Give them important things to do, and **see that they do them.** Make your first sergeant and your company clerk do their proper share of keeping the records. Have it clearly understood just what each officer and man is to do, **and see that they do them.** Remember, the captain's job is to supervise the entire company, and not to devote his entire time to any one class of work. I can hear you say, "But they don't know the work." **Good.** Will they ever learn unless you teach them and require them to do it? You must teach them; it is part of your job, and will well repay you in the end.

The lieutenants, first sergeant, and company clerk should be required to be at the armory an hour before drill; this will give them ample time in which to clear up all paper work and keep things in shape.

"Now, how will I use my lieutenants?" I hear you say. Let us see. A letter comes from the adjutant general wanting to know the condition of your tentage. Turn it over to the first lieutenant; tell him what you want him to do and when you want a report from him. Make a note on your memorandum calendar (every captain and first sergeant should have one on his desk), and when the day for the report arrives and you turn the leaf it will automatically remind you of the fact. Ask the lieutenant for his report. Require the second lieutenant to assist you in the same manner.

Taking care of the company and its records is a big job for one man, but five men can do it easily if each man does his share.

You, of course, must have files for orders, letters, reports, etc., and they must be kept up to date.

Pay particular attention to your descriptive lists, muster- and pay-rolls, and see that men are discharged promptly when their discharge is due. I have known men who belonged to the Guard who did not receive a discharge for seven or eight months after their time had expired; some never received a discharge at all. You can't have discipline under these conditions. If you are not careful about enlistment papers and discharges, your men will not take their service in the Guard seriously, and any kind of discipline whatever will be impossible. You must be on the job every minute yourself, and if you are, others will be also; if you are not, others will soon find it out and they will slack up, and your company will soon be ruined.

In keeping the records of individual men, I have found that the very best system is to have a linen envelope, in which is placed every order or record that in any way pertains to the man. When you want to find out something about Brown, all you have to do is to get his envelope and his entire military record should be there—target reports, delinquency court records, enlistment paper, special orders that relate to him, etc. I have used this system for many years and it is entirely satisfactory in every respect.

Discipline.

I have heard many National Guard officers say: "This is not the Regular Army and we can't have the same discipline." True, **but you can try.** The nearer you approach to the Regular Army standard the better organization you will have and the more efficient your company will be. **It is possible to have excellent discipline in the National Guard**—keep that always in mind. If you believe that discipline is not possible, you will never have it; you are half defeated already. If you do not believe it is possible, you will not strive for it and will in consequence never attain it. Now, how will you attain discipline? You will achieve it by insisting on all those little courtesies that are prescribed in regulations (saluting, etc.), and by insisting on orders being obeyed promptly, and by requiring smartness and precision in close-order drill.

Your men must be present for drill promptly in proper uniform;

they must obey all company orders and regulations, and must keep their lockers and equipments clean and neat. You must insist upon these apparently small things continually. This is the way you get order, organization, and discipline.

Your men must always be respectful to you and to all other officers. They must salute you, stand to attention in your presence, and never enter the orderly-room without knocking and first receiving the word to come in. These things will be continually slighted—usually from ignorance or carelessness—and you must continually insist upon their observance. Now, I don't mean that you must nag the men, but you must call a man's attention to these things and require that he observe them; do this kindly and firmly, and avoid patronizing the men, as this irritates them more than anything else. And, whatever you do, don't explain and be apologetic; they will lose respect for you if you do; simply say that the regulations prescribe it, it is a part of the game, **and that you will require it.**

After a man receives an order, see that he salutes and makes a correct **about face** when he leaves you.

When an enlisted man speaks to you, require him to stand about four feet from you. It is also customary for enlisted men to get the first sergeant's permission before they speak to the captain, except, of course, at drill or other emergency.

Military discipline is logical, intelligent control; good discipline is never despotic, unreasonable, or arbitrary. Don't try to enforce discipline in your company by bluff; it won't work. Be careful to explain to your men clearly what you want, and then see that they do it.

Very few men deliberately disobey an order. Mistakes that are made are usually the result of poorly-given orders. One of the hardest things in this world to do is to give an order that cannot be misunderstood or is fool-proof.

Never coddle your men or patronize them.

Be on good terms with your men, but never get familiar with them or permit any familiarity on their part. You can always stop familiarity by a brief answer or by a dignified manner, and this without getting the reputation of being a snob or stuck up.

Be very particular about your personal appearance, and always have your uniform neat and clean and wear it in a military manner. Keep your shoes and leggings polished. Men like to take pride in their officers, and your appearance helps discipline more than you realize.

Never neglect to return the salutes of enlisted men in a military manner, and require your lieutenants to do the same thing. Nothing will undermine discipline quicker or more surely than to have officers over men who return salutes in a slouchy or indifferent manner or more frequently do not return the salute at all. In a very short time men will cease to salute such officers.

Never fail to see that they use the word "sir" when speaking to you, and see that they stand to **attention** in your presence. **These things are very necessary for discipline.**

I do not believe that it is necessary or desirable to insist upon the salute when outside of the armory unless you are both in uniform, but when you enter the armory door, whether in civilian clothing or not, you are soldiers, and military courtesy must be observed.

Insist upon steadiness in ranks; make the men keep their hands down and stand still. You can't have discipline without enforcing these small but very important things. If a man raises his hands in ranks, call him by name and correct him briefly; don't bluster or bawl him out; this method will bring about the desired result about as quickly as anything that I know of.

Take care of every small thing that comes up; let the men know that it has been noticed, and you will never have any big things to handle.

Good discipline is the result of moral control, and not brute force.

Uniform.

Insist upon your men being in proper uniform, with their hats straight on their heads, blouses buttoned, collars hooked; or, if in shirts, require them to have the sleeves turned down and buttoned at the wrists, and see that every button is in place and used for the purpose for which designed.

Many Guardsmen believe that the tougher they look the more they look like soldiers; this is not true, and should not be tolerated

for a moment. The well-trained soldier is always neat, clean, and is a self-respecting gentleman; the man who conducts himself in any other manner shows exactly what he is—a recruit, without discipline, training, or pride.

Arms.

The well-trained soldier looks upon his rifle as his best friend and always takes the best care of it at all times. I have always believed that each man should be required to clean and care for his own rifle. The practice of having the armorer clean rifles is pernicious and tends to relieve the individual soldier of responsibility. It may be difficult to enforce this at first, but insist upon it, and in time you will attain this very desirable result. I have handled many rifles that were so dirty and badly looked after that it was necessary to wash your hands afterwards; this is absolutely wrong.

Belts should be scrubbed with H. & H. soap or other soap issued for the purpose, and kept clean and free from dirt and grease.

Gun-slings should be treated in a similar manner. The average gun-sling is filthy.

Scrub your bayonet scabbards also.

But don't use any soap except that issued for the purpose.

Shelter tent halves should never be scrubbed with soap; it injures the fiber and will cause them to leak. If muddy or soiled, rinse them off with clean cold water.

Rifles should be kept locked in the racks while not in use, and there should always be a responsible non-commissioned officer present when they are taken from the racks, to see that the men get their own rifles. Watch this carefully. Nothing discourages a man like having his rifle clean and in good shape and then to have someone else take it out and use it for target practice or drill. If this is permitted, the company commander is responsible and is inefficient.

Non-commissioned Officers.

Don't expect to find them already trained. You must appoint any suitable intelligent man and then train him in his duties; in order to be able to do this you must know his work better than you expect him to know it. Remember, the efficient company commander knows every man's job in the company better than he knows it

himself. Don't fool with incompetents for a moment; this game is too serious. Allow no personal like or feeling to influence you in the appointment or reduction of non-commissioned officers; there should be only one thing that should be considered—the efficiency of the company as a whole. Let this be your guide, and you will make few mistakes.

Enforcement of Discipline.

Company commanders may say: "Those suggestions are good, but how am I to enforce them?" This question will have to be answered by every company commander himself. It will depend upon the personality of the man, the standard of discipline in his company and in the Guard of the State to which the company belongs. No hard-and-fast rule can be laid down. I believe that the best way, and one that admits of general application, is to appeal to the soldiers' pride and better nature. Show the man the necessity for the measures which you wish to enforce and impress upon him the seriousness of the work in which he is engaged—I mean that of preparing himself so that he can defend his country in time of war. This appeal will usually go home and bring results. If this method fails, you will have to use more drastic methods.

I know of a company commander who required men who were late for drill to work in the store-room cleaning rifles or other necessary but unpleasant work as a punishment for being late. He would not allow these men to drill at all that evening. This method is good. Try it. If, as a result of this, the man went absent from the next drill, he preferred charges against him and tried him by the delinquency court and had him fined. As a general principle, I don't believe in resorting to the delinquency court unless all other methods fail, and then I believe in working it to the limit. However, don't attempt it unless you have a good State law and can make it stick. I can tell you from experience that it will not hurt your company in any way and will have no effect whatever on enlistments of the kind you want. If it scares off the others, so much the better. I have seen it tried out thoroughly and comprehensively and it has always produced good results—provided, of course, that you have a good State law; if your State law is not good, don't attempt it, as it will do more harm than good.

General Remarks.

Most men make mistakes through lack of proper training and clear instruction; if this is the case, it is your fault or the fault of your predecessor. Correct it. A very good method of imparting instruction and making men familiar with orders and regulations is to have what you want them to know printed on little cards that can be carried in the pocket. Men will read these cards during leisure moments and will thus absorb much valuable information.

In this book in connection with the lectures you will find cards which contain a sentinel's outpost orders and instructions for patrols. Have similar cards printed and issue one to every man in the company.

The card on "Rules of the Game" is especially recommended, as it produced most excellent results.

You can in this manner place any subject before your men and feel assured that they will absorb it. Make your cards brief and very clear, and you will always attain the desired object.

The lectures can be taken up in non-commissioned officers' school, read and discussed, and excellent results will follow. You should have a blackboard with colored chalks to illustrate them; this board is also useful to draw diagrams of movements in drill that are not clearly understood.

It is believed that the orders bound as an appendix to the second chapter will be found very useful. Many officers are not only not familiar with these orders, but are ignorant of the existence of the orders themselves.

Reference Books.

Every company should have a military library belonging to the orderly-room. These books should never be removed from the office, but all men in the company should be permitted to refer to them whenever they desire.

It is also excellent for the company to have a library for the exclusive use of the men belonging to it; this library should have a distinct military tone to produce the best results. Fill it with military stories, histories of campaigns, and standard works of fiction dealing with adventure or military subjects. Every man has a certain amount of the military spirit in his make-up, and what

you want to do is to cultivate and foster it. Trashy novels and stories dealing with kind-faced cows standing in silvery streams should be prohibited; they are not proper reading for men whom you are trying to make soldiers of. If men want this kind of reading, they can get it outside of the company.

Hang your walls with good military pictures; they also help lots to cultivate the military spirit. In order to produce the best results, you must surround your men with a military atmosphere.

The following books should be in the orderly-room library:

"U. S. Army Regulations."

"The Organized Militia Regulations of the War Department."

"Field Service Regulations, U. S. Army."

"Manual of Courts-Martial, U. S. Army."

"U. S. Infantry Drill Regulations and Manual of the Bayonet." 1911.

"Manual of Interior Guard Duty." 1914.

"Small Arms Firing Manual, U. S. Army." 1914.

"Manual of Military Field Engineering." (Beach.)

"Troops on Riot Duty." (Stockton-Dickinson.)

"Drill Regulations and Service Manual for Sanitary Troops, U. S. Army." (For teaching first aid.)

"Instructions and Problems in Guard Duty for the Private Soldier." Government publication.

"Elements of Military Sketching." (Barnes.) Published by U. S. Infantry Association.

"Infantry Equipment Manual, Organized Militia."

"Description and Rules for the Management of the U. S. Magazine Rifle." No. 1923.

"Description of the Automatic Pistol, Caliber .45, Model 1911." No. 1134.

"Description of the Infantry Equipment, Model 1910." (If you have the new equipment.)

"Manual for Non-commissioned Officers and Privates of Infantry of the Organized Militia and Volunteers of the United States." 1914.

"Aids to Scouting." (Baden-Powell.)

"Manual for Army Cooks, U. S. Army."

"Training Infantry." (Morrison.) A most excellent book.

"Military Policy of the United States." (Upton.) War Department publication.

"The Valor of Ignorance." (Homer Lea.)

"Fire Problems." (Pilcher.) An English book, but most excellent.

I do not think that you can safely omit a single book in the above list.

APPENDIX.

GENERAL ORDERS, No. 3. WAR DEPARTMENT, WASHINGTON, January 12, 1915.

I. The bacon chest and condiment chest are discontinued as part of the field equipment. Those now in the hands of troops or supply officers will form part of the permanent camp equipment until the supply on hand is exhausted. (2234786, A. G. O.)

II. So much of Paragraph II., General Orders, No. 23, War Department, 1906, as relates to the clothing component of the filed kit and the surplus kit, as amended, is further amended as follows:

1. The field kit, clothing component, for all arms and branches of the service, mounted and dismounted, in addition to the clothing worn on the person, is composed of the following articles:

1 blanket.
1 comb.
1 drawers, pair.
1 poncho (dismounted men).
1 slicker (mounted men).*
1 soap, cake.
2 stockings, pairs.
1 toothbrush.
1 towel.
1 undershirt.
1 housewife (for 1 man of each squad).

The foregoing field kit, which is carried on the person by dismounted men and on the packed saddle by mounted men, is supplemented by the surplus kit, the two together making up the clothing component of the service kit.

2. The surplus kit consists of:

1 breeches, pair.
1 drawers, pair.
1 shirt, olive drab.
1 shoes, russet leather, pair.
2 stockings, pairs.
1 shoe-laces, extra pair.
1 undershirt.

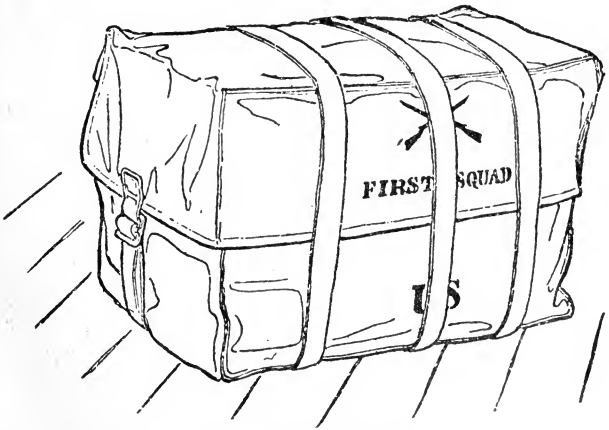
The surplus kit pertains to Equipment "B" (Paragraph I., G. O., No. 85, W. D., 1914), as part of the permanent camp equip-

*For all enlisted men of the Quartermaster Corps, both mounted and dismounted; also for enlisted men of the Hospital Corps detailed as ambulance drivers and ambulance orderlies.

ment, to be forwarded to troops when serving in instruction, maneuver, mobilization, or concentration camps, or when in active service a temporary suspension of operations permits the troops to refit. In peace-time maneuvers and marches the surplus kit may accompany the troops, if so directed in the orders prescribing the movement. The vehicles and animals of the combat train and those representing the divisional supply train will be utilized to transport them.

3. The sweater will form part of Equipment "A" (Paragraph I., G. O., No. 85, W. D., 1914), pertaining to field service, and, when climatic conditions require its use, will be carried by the soldier on his person. When sweaters are not prescribed to be worn on the person, they will be collected into bundles of convenient size and secured by burlap or other suitable material, or will be boxed. They will be marked ready for shipment, to be forwarded when required. In peace-time maneuvers and marches the sweater, even though not prescribed to be carried by the soldier on the march, may accompany the troops, if so directed in the orders prescribing the movements. The vehicles and animals of the combat train and those representing the divisional supply train will be utilized to transport them.

The same rule will apply in regard to overcoats.



SURPLUS KIT BAG.

4. Surplus kit bags will be issued to each organization at the rate of one to each squad, one for the sergeants, and one for the cooks

and musicians (or trumpeters), and one for every eight men of detachments.

Each bag will be marked with the letter of the company and the number of the regiment, as provided in Paragraph 295, Army Regulations, for haversacks, and the proper designation of the squads to which the bags belong, both markings to be in center of front cover flap, as shown in the illustration.

5. The kit bag for the sergeants and that for the cooks and musicians (or trumpeters) will be marked "Sergeants," "Cooks and Musicians" (or Trumpeters), respectively. Similarly, the kit bags for detachments will be appropriately marked.

The kit of each man will be packed as follows:

Stockings to be rolled tightly, one pair in the toe of each shoe; shoes placed together, heels at opposite ends, soles outward, wrapped tightly in underwear, and bundle securely tied around the middle by the extra pair of shoe-laces, each bundle to be tagged with the company number of the owner. These individual kits will be packed in the surplus kit bag in two layers of four kits each, the breeches and olive drab shirts to be neatly folded and packed on the top and sides of the layers, the jointed cleaning-rod and case, provided for each squad, being attached by the thongs on the inside of the bag. (2234786, A. G. O.)

III. Paragraph V, General Orders, No. 16, War Department, 1914, relating to the withdrawal of the surplus kit bag from issue as an article of equipment for organizations of mountain artillery, is rescinded. (2234786A, A. G. O.)

By order of the Secretary of War:

A. L. MILLS,
Brigadier General, General Staff Corps,
Acting Chief of Staff.

Official:
H. P. MCCAIN,
The Adjutant General.

GENERAL ORDERS, No. 51.

WAR DEPARTMENT,
WASHINGTON, July 2, 1914.

By direction of the President, the minimum enlisted strength for each organization of the Organized Militia is fixed as follows:

For a company of infantry, total enlisted, 65. This is based on apportionment to grades as follows, viz.: 1 first sergeant, 1 quartermaster sergeant, 4 sergeants, 6 corporals, 2 cooks, 1 artificer, 2 musicians, and 48 privates.

For a troop of cavalry, total enlisted, 65. This is based on apportionment to grades as follows, viz.: 1 first sergeant, 1 quartermaster sergeant, 6 sergeants, 6 corporals, 2 cooks, 1 farrier, 1 horseshoer, 1 saddler, 1 waggoner, 2 trumpeters, and 43 privates.

For a company of engineers, total enlisted, 65. This is based on apportionment to grades as follows, viz.: 1 first sergeant, 1 quartermaster sergeant, 5 sergeants, 8 corporals, 2 cooks, 2 musicians, 23 first-class privates, and 23 second-class privates.

For a company of coast artillery, total enlisted, 65. This is based on apportionment to grades as follows, viz.: 1 first sergeant, 1 quartermaster sergeant, 4 sergeants, 6 corporals, 2 cooks, 2 mechanics, 2 musicians, and 47 privates.

For a battery of field artillery, total enlisted, 133. This is based on apportionment to grades as follows, viz.: 1 first sergeant, 1 quartermaster sergeant, 1 stable sergeant, 6 sergeants, 12 corporals, 3 cooks, 1 chief mechanic, 4 mechanics, 2 musicians, and 102 privates.

For Signal Corps companies:

Type A company, total enlisted, 75. This is based on apportionment to grades as follows, viz.: 2 master signal electricians, 7 first-class sergeants, 10 sergeants, 17 corporals, 2 cooks, 24 first-class privates, and 13 privates.

Type B company, total enlisted, 74. This is based on apportionment to grades as follow, viz.: 1 master signal electrician, 5 first-class sergeants, 8 sergeants, 13 corporals, 2 cooks, 34 first-class privates, and 11 privates.

Type C company, total enlisted, 40. This is based on apportionment to grades as follows, viz.: 1 master signal electrician, 3 first-class sergeants, 5 sergeants, 7 corporals, 2 cooks, 14 first-class privates, and 8 privates.

Type D Company, total enlisted, 67. This is based on apportionment to grades as follows, viz.: 2 master signal electricians, 5 first-class sergeants, 8 sergeants, 13 corporals, 2 cooks, 29 first-class privates, and 8 privates.

For the Hospital Corps: (a) Ambulance company section, total enlisted, 43. This is based on apportionment to grades as follows, viz.: 2 sergeants, first class, 7 sergeants, 1 acting cook, and 33 privates, first class, and privates. (b) Field hospital, total enlisted, 33. This is based on apportionment to grades as follows, viz.: 3 sergeants, first class, 6 sergeants, 2 acting cooks, and 22 privates, first class, and privates. (1254402A, A. G. O.)

By order of the Secretary of War:

W. W. WOTHERSPOON,
Major-General, Chief of Staff.

Official:

GEO. ANDREWS,
The Adjutant General.

GENERAL ORDERS, No. 85.

WAR DEPARTMENT,
WASHINGTON, November 20, 1914.

I. The following instructions pertaining to field equipment are published for the information and guidance of all concerned:

1. Field service is defined to be service in mobilization, concentration, instruction, or maneuver camps, as well as service in campaign, in simulated campaign, or on the march.

The complete equipment for field service (equipment "C") consists of engineer, ordnance, signal, medical, and quartermaster property; and is divided into two classes, "A" and "B."

Equipment "A" is the equipment prescribed for use in campaign, in simulated campaign, or on the march. It is limited to the animals and vehicles prescribed in the Tables of Organization, the equipment and clothing worn on the person, and the articles carried on mount and transported in field, combat, and divisional trains.

Equipment "B" is the equipment which, in addition to equipment "A," is prescribed for the use of troops in mobilization, concentration, instruction, or maneuver camps; and during such pauses in operations against an enemy as permit the better care of troops.

Equipment "C" is the sum of equipments "A" and "B," and therefore includes every article prescribed for field service as hereinbefore defined.

When troops are ordered on field service, instructions will state the letter designation of the equipment to be taken. The instructions will also specify whether mosquito-bars and head-nets are to form a part of the equipment, and what winter articles, if any, are to be included. The same rule will apply in the issuance of subsequent orders when necessary. Articles distinctively for winter use can be transported as baggage on the march only when transportation in addition to that prescribed in equipment "A" is provided for that purpose. In addition to the allowances prescribed as the field equipments, service coats, cravats, fatigue clothing, and other articles of uniform, extra bedding, and toilet articles may be taken by officers and enlisted men with equipment "B," when authorized in orders directing the movement of troops.

2. The articles of engineer, ordnance, and signal property listed in the several Unit Accountability Equipment Manuals belong to equipment "A." The articles of medical property belonging to equipment "A" are shown in the Manual for the Medical Department. The articles of quartermaster property belonging to equipments "A," "B," and "C," respectively, will be shown in tables soon to be published. (2227724, A. G. O.)

By order of the Secretary of War:

H. L. SCOTT,
Brigadier General, Chief of Staff.

Official:
E. F. LADD,
The Adjutant General.

CHAPTER II.

ORGANIZATION AND EQUIPMENT.

When an officer attains to the grade of company commander, his responsibilities become great; this responsibility is shared only with the colonel of a regiment; the responsibilities of all other officers sink into insignificance when compared with the load carried by the captain and the colonel. Each is directly responsible for the training of an organization. If they are efficient, their organizations are efficient; if they are not, their organizations reflect their incompetence.

The U. S. Infantry Drill Regulations say: "Only one kind of infantry is required in war—**good infantry.**"

The first question which naturally arises in the mind of the company commander is: "Is my company efficient? if not, in what respect is it deficient?" Next, "How can I make it an efficient organization?"

Let us start at the beginning, and let me ask you a few questions; if you can answer them satisfactorily to yourself, good; if not, don't read any further until you have corrected these defects; then proceed:

Is your company properly organized? Have you your proper number of non-commissioned officers, cooks, artificer, and musicians? If not, appoint them.

Is your company properly equipped? Have you your intrenching tools, signal kits, first-aid packets, proper number of rifles, equipments, etc.? If not, get them.

Is your property all marked as required by Paragraph 295, Army Regulations, 1913? If not, mark it. While the Regulations do not require clothing to be marked, still I have found it advisable to mark everything—hats, leggings, clothing, blankets, etc. Mark the article with crossed rifles, company letter, and regimental number, and the man's company number also; this will prevent articles from getting lost, especially in the National Guard. All articles of clothing can be marked on the inside. Use stencil furnished. Have you the stencils required? If not, get them.

Now we come to clothing. Do your men know who to wear the uniform? Your first thought is, "Of course." But I ask you again, Do they? Has anyone ever shown the recruit, or even your older men, exactly how the uniform should be worn? The usual way is to give a man a uniform and let him put it on in any way that suits him. Do you doubt the necessity for this? Good. Inspect your company the next time it falls in, and note the number of hats without hat-cords, those with the hat-cords not sewed on; note the number of men who have their leggings on wrong; note the blouses with buttons off or unbuttoned, etc. You will find that you have overlooked these little but very important details. Correct them.

Are the above points essentials? Yes, they most certainly are. A man cannot become a good soldier unless he takes a pride in his equipment and uniform; he will never do this until he is sure that he will always have the same equipment. Teach him to be neat, and he will take a pride in his uniform and his profession. Let him dress like a tramp, and he will soon be an undisciplined tramp, with dirty equipment, slouchy uniform, and that soon means a rusty gun, bad drill, and no discipline.

Are the campaign hats all properly creased? If not, get them in shape and teach your men to place them carefully in the lockers so that they will not get jammed out of shape.

Have your men a uniform way of arranging their clothing in the lockers? If not, prescribe one and enforce it.

All these small things make for discipline. Every time a man does something that you want him to do in the manner that you want it done you have acquired a certain amount of discipline. He will obey you just that much better at drill and on the firing-line some day. As I said before, all these small (usually thought unimportant) details go to make your company well disciplined and efficient; neglect them and you will never have a well-disciplined organization. You must strive for discipline all the time, and never neglect the smallest thing that will in any way help. We utilize these small things in the regular service to bring about the desired result and they are more necessary in the Guard than in the regular service, because you have control over your men for such a short time at best and at intervals. Make the most of the time you have.

For this reason I require all drill in the National Guard, whether close or extended order, to be at **attention.** Your extended-order drill is not so long that it will work any hardship upon your men, and it will improve your discipline wonderfully.

Now, how about your tents? Have you the correct number and kinds? Are they in good condition? Have you extra ropes and the proper number of tent-pins? If not, get them.

How about your field range? Is it clean? Are the utensils clean and have you the required number? Do you know how to pack the field range? If not, see appendix to this chapter. It is necessary that the range be packed exactly as prescribed for the following reasons: First, you will lose parts if it is not properly packed in transit; and second, you will not be able to get all of the cooking utensils inside of it unless it is properly packed. After the range has been used in camp, it should be thoroughly cleaned and then painted with stove enamel, asphalt varnish, or any preparation to keep it from rusting; this will burn off in a short time when the range is used again and will keep your range in excellent condition. The cooking utensils should be scoured, dried, and then greased with cosmoline to keep them from rusting; they can be washed in lye when required for use.

Now, how about your company records? Are they kept up to date? Get after them if they are not. Do you try to do it all yourself? If you do, **don't**; it is not your work. Make your lieutenants help, and be sure to have the first sergeant and the company clerk do their share. The captain's business is to supervise everything. You must see that the others do not slight their work. You may say: "I have no one who knows the work; it is easier to do it myself than it is to try to teach someone else." I know that, but the system is wrong. Teach them; it is part of your work, and will more than repay you in the end. Remember, if the efficiency of your company depends entirely upon you, your organization will never be really efficient, and you will not have the time to devote to other more important things that need your attention.

Now, how about your first sergeant and quartermaster sergeant? Do they do their work, or are they merely figure-heads? If they are, something is wrong. Correct it at once. I once saw an adjutant

general of a State issuing clothing—in fact, doing quartermaster sergeant's work. Was that Guard efficient? It certainly was not. At another time I saw a lieutenant colonel issuing out blanket-rolls which had been unloaded from a wagon to enlisted men. This is absurd. The sergeants did not know how to do it. Could they ever learn under such a system? Remember, in order to be a thoroughly efficient officer, the captain must know every man's job in the company better than he does himself. If you don't know their work, learn it.

Is the armory, or at least the company-room in the armory, kept clean at all times, especially on drill nights? If not, have it cleaned and keep it clean. How can a man take a pride in his organization if he comes to an untidy, unkept room to change clothes for drill? Will this man, trained under such surroundings, keep his camp clean and sanitary when he takes the field and his life and the lives of his comrades are at stake? He will not, and we will have the horrors of the camps of 1898 repeated.

Your responsibilities as a company commander are great. Take them seriously.

Now, how about shoes? Do you know anything about the fitting of shoes? You should; you are a captain of **foot troops.** I know that your men cannot get the Government shoe in time of peace; but you should know how to fit shoes to them when they are issued to you as they will be in war. One is apt to think that every man knows whether a shoe fits him or not; he does not. The average man habitually wears a shoe too short and too narrow for him. If you take the number given you by this man when issuing Government shoes to him, your company will not be properly shod, and they will not be able to march when put to the test.

Get the book, "The Soldier's Foot and the Military Shoe," by Munson. You will find things in it about your feet that you never dreamed of. This is an essential. Read carefully G. O. No. 26, August 16, 1912, War Department. This will teach you how to measure the feet of your men. Also read G. O. No. 30, 1913, which amends the above order in regard to socks. Socks are almost as important as shoes.

How about your company boxes for packing surplus articles?

Do they conform in size to the War Department requirements? Read G. O. No. 10, February 18, 1914, War Department, for sizes required. (These orders are found as an appendix to this chapter.)

How about your tents for camp? are they folded as prescribed in the Infantry Drill Regulations? If not, fold them in the proper manner and keep them in shape. It takes no longer to fold them correctly than it does to throw them together, and it has the additional advantage of having them ready for transportation, if necessary.

Do your men know how to make up the blanket-roll (old pattern) correctly? Teach them. (See appendix to first chapter.) I believe that it is better to have your rolls made up at all times; articles do not then get lost, and if you are ordered out in a hurry, everything is ready. Have two pegs in the company-room for each man; hang the made-up blanket-roll on one and the man's belt, haversack, canteen, etc., on the other; have the man's company number stenciled above the pegs. Remember, each man in the company should be given a company number, and all of his equipment should be marked with this number; this will prevent articles from getting lost or misplaced. The method of doing this is prescribed in Paragraph 295 A. R., 1913. The man's locker in the armory will bear the same number. This is system.

Now in regard to organization: Do you know where to find out how your company should be organized? If not, get and study "Tables of Organization, U. S. Army," 1914, and G. O. No. 51, W. D., 1914. This is the one authoritative source for all information of this kind.

Do you know what the proper equipment of every man in your company is? If not, get the "Infantry Equipment Manual, Organized Militia," 1914; this will tell you.

Do you know what the field kit and surplus kit are? Do you know how and where they are carried, and when used? See appendix to first chapter.

For convenience and reference, the orders referred to above are bound as an appendix to this chapter.

"The Infantry Equipment Manual, Organized Militia," 1914,

contains complete information in regard to the equipment of all kinds and classes that you should have on hand in your organization.

Always take a receipt for every article that goes out of your store-room; this means, make every officer and soldier receipt to you for every article issued to him. Follow this rule, and you will always know where your property is or should be; neglect it, and in a short time you will have lost hundreds of dollars' worth of property, which you will have to pay for. You will never be able to make it up or find it.

Never throw away any article, no matter how worthless it may seem, until it has been acted upon by a survey officer; he will decide what disposition should be made of it.

APPENDIX.

METHOD OF PACKING FIELD RANGE NO. 1 (OLD PATTERN).

Every article must be thoroughly cleaned and dried before packing range.

Take down stovepipe and nest the pipes carefully. Pack same in fire-box.

Take off all stove-lids and pack same in the fire-box under the grate.

Place stovepipe supporter in the top of the stove through small door in font of stove. (This rod holds the stovepipe in the fire-box.)

Close small door and secure it.

Place fire shovel inside under grate.

Take one of the two bake-pans and place it on the ground. Nest the boilers, and place them on their sides inside the bake-pan with the bottom of the boilers toward the end of the bake-pan, which will be at the back of the oven when the oven is closed.

Place stovepipe elbows inside nested boilers.

Place the meat-chopper, pot-cleaner, salt, pepper, and flour dredges, sieve, dipper, ladles, butcher-knife, cleaver, meat saw, etc., inside of the boilers.

Place the other bake pan inverted over the top of the boilers, so that articles above enumerated are nested between both bake-pans.

Place range lanterns between bake pans on the side toward the door of the stove when the nested pans, etc., are packed in the oven.

Slide nested bake-pans and other articles packed between them into the oven.

Place boiler covers on top of bake-pan; close oven door and

secure it with the iron rod provided for this purpose; wire this rod to the staple.

CONTENTS OF FIELD RANGE NO. 1 (OLD PATTERN).
Price, $23.18.

	Price.		Price
Boilers, nested (4)	$1.11	Ladles, soup, 1	$0.23
Choppers, meat, 1	1 21	Lanterns, folding, 2	1.30
Cleaners, pot, 1	.03	Pans, bake, small, 2	.60
Cleavers, large, 1	.57	Pipe, smoke, elbow, 2	.27
Dippers, large, 1	.32	Pipe, smoke, joints, 4	.15
Dredges, flour, 1	.09	Saws, meat, 1	.64
Dredges, pepper, 1	.05	Shovels, range, large, 1	.06
Dredges, salt, 1	.08	Sieves, flour, 1	.35
Forks, large, 1	.29	Skimmers, large, 1	.20
Guards, tent, 1 (2 pieces)	.10	Spoons, large, 1	.07
Knives, butcher, 1	.27	Steels, butcher, 1	.29
Ladles, pierced, 1	.25	Turners, cake, 1	.19

Field ranges should be kept properly packed at all times when not actually in use.

Company commanders should verify the articles and replace by purchase from local markets any missing article. They cannot be replaced in any other manner, as these things are no longer an article of issue. This is a proper charge against company funds.

If the range is to be packed and not used for any length of time, boilers, dippers, and other equipment should be coated with cosmoline or paraffine, which is better. Cosmoline can be removed with lye-water and paraffine will quickly boil off if the article is placed in water.

If the above precautions are not taken, the range and its equipment will become a mass of rust, which will utterly ruin everything in a short time.

Circular No. 3, O. I. I.

ADJUTANT GENERAL'S OFFICE,
OFFICE OF THE INSECTOR-INSTRUCTOR,
PHOENIX, ARIZONA, October 19, 1914.

REGULATIONS FOR FOLDING TENTS AND MAKING UP BLANKET-ROLL.

1. Spread shelter-half smoothly on the ground, buttons up and triangular end to the front. Fold blanket once across its length and place it upon shelter-half; fold toward the bottom edge, one-half an inch from the square end, the same amount of canvas uncovered at top and bottom. Place the pole on the side of the blanket next the square of the shelter-half, near and parallel to the fold, end of pole about 6 inches from the edge of the blanket. Nest the pins near the opposite end of the blanket, and distribute the

other articles carried in the roll (if any). Fold the triangular end and then the exposed portion of the bottom of the shelter-half over the blanket. The two men in each file roll and fasten first the roll of the front-rank and then the rear-rank man. File-closers work in a similar manner—two and two. When the roll is completed, fasten the center strap and then the end straps. With the roll so lying on the ground that the edge of the shelter-half can just be seen when looking vertically downward, one end is bent upward and over to meet the other. Fasten and adjust blanket-roll straps or rope to suit wearer. When the rolls are slung, the end containing the pole should be to the rear. Shelter-halves should be so marked that the crossed rifles will show, when the roll is slung, on the end that contains the pole. An inspection will then show whether each man has his own shelter-half or one belonging to another man or another company.

To Fold Wall Tents.

2. Spread the tent flat on its side and place all guys but two over the canvas; fold the triangular ends over so as to make the canvas retcangular; fold both ends over so that they meet at the center and then fold one end over on the other; fold the bottom and ridge over so that they meet at the center of the strip, and then fold one end over the other. Fold the fly into four folds parallel to its length, then in a similar manner across its length, making a rectangle with dimensions about the same as the folded tent. Place the fly on the tent, cross the two free guys and tie them so that they pass over the ends and across the sides. The **hospital** and **common** tents are folded in the same manner as the wall tent.

To Fold Conical Tents.

3. Spread the tent flat with the door up; holding the ring vertical, fold the two edges in so that they meet at the center and again fold in the same manner; place the hood on one half and fold the other half over it; turn wall over toward ring, fold the ring down, placing knees on each fold to make bundle compact and flat. Tie bundle with two free guys, as in case of wall tent.

4. In striking tents, common and wall tents are, unless otherwise directed, lowered to the right, facing out from the tent door; conical wall tents, away from the door.

To Fold Pyramidal Tents.

5. See Infantry Drill Regulations, 1911 edition, Paragraph 808.

Cromwell Stacey,
Captain U. S. Infantry, Inspector-Instructor.

WAR DEPARTMENT,

OFFICE OF THE QUARTERMASTER GENERAL OF THE ARMY,

Circular No. 8. WASHINGTON, May 18, 1914.

Circular No. 16, Office of the Chief of the Quartermaster Corps, June 12, 1913, is hereby revoked, and the following instructions are given for installing and operating the Army field ranges Nos. 1 and 2, viz.:

The Army field range No. 1, complete, as described herein, weighs approximately 264 pounds with utensils, and with the addition of the Alamo attachment is designed to cook for 150 men. It consists essentially of two parts, viz.: the oven No. 41 and the boiling-plate; the boiling-plate has three sections, No. 42 and two other parts, forming the Alamo attachment, Nos. 42A and 42B.

To pack the utensils and range for transportation, place the bake-pan No. 52 on the ground. Set boiler No. 50 inside of bake-pan No. 52; boiler No. 51 inside of boiler No. 50. Place tent-guards inside of boiler No. 51 on bottom. Telescope the 4 joints of pipe. Inside of the pipe place 2 forks, 3 knives, 1 sharpener, 1 cleaver, and 2 folding lanterns. Place joints of pipe containing utensils inside of boiler No. 51. Place meat-chopper in boiler No. 51 alongside of joints of pipe. Place two basting-spoons, 1 meat-saw, and 1 skimmer in boiler No. 51 on top of pipe. Cover with lid No. 51, then No. 50. Place bake-pan No. 52 upside down over lid No. 50. Care should be taken that bake-pan handles are well down to sides of the pan. Nest 4 boilers, Nos. 48, 49, 53, and 54, No. 48 outside. Place stovepipe elbow in No. 54. Place dippers alongside of elbows. Place covers Nos. 54, 53, 49, and 48 on boilers in order named. Place nested boilers Nos. 48, 49, 53, and 54 in rear end of oven. Place bake-pans and nested boilers in front end of oven. Close the oven door and lock with damper lock. Place 42A on left front corner of oven No. 41 and 42B on right front corner, inserting bar in crimp. This bar now rests against the pipe collar and prevents sliding. Place boiling-plate No. 42 on top of range, eye fitting over stovepipe flange and engaging under the flat hook. Make secure by fastening hook on front of boiling-plate to the lug on back of range. The range is now secure for transportation.

INSTALLING THE RANGE.

(See Fig. 1.)

On the march the range is ordinarily set up by simply leveling the ground selected and placing the oven No. 41 and boiling-plate No. 42 side by side, so that the oven door and fire-box door will be at the same end. Draw in 42A and 42B and secure bar-lock. Insert 42A into 42 and rest 42B snugly on the angle iron on the rear of the range. **The oven should not be banked, as this would cause**

the sheet iron along the sides to warp and finally burn through. Sufficient earth, however, should be tamped along the sides and closed end to prevent the passage of gases beneath. This earth should not extend above the straps along the sides and under the oven door.

When used for one day only (see Fig. 3), it will be necessary to dig a trench, but if a few shovelfuls of earth are removed from the place to be covered by the boiling-plate, it will facilitate firing. The best results are obtained by using short wood—keeping the fire well toward the firing end of the boiling-plate; or, if using long sticks and branches, pushing them under the boiling-plate as they are consumed.

TRENCHING.

(See Fig. 2.)

If the range is to remain in place for several days, it is best to dig a trench (except in sandy soil) about 18 inches wide by 6 inches deep and the length of the boiling-plate, say 6 feet, sloping upward to about 5 inches in depth at back end. When installed, the trench should extend under the boiling-plate and about 1 foot under the Alamo attachment—just enough to facilitate the draft—and about 6 inches under the oven. When the range is set up on different ground daily, no difficulty will be experienced in obtaining the proper temperature in the oven, both for top and bottom heat. Whenever it remains for a longer time than one day in the same spot, the ground will become dried out and hot, and it may be necessary to elevate the bake-pans from the bottom of the oven about 2 inches above the floor of the oven. This can be easily done by the use of angle irons or other convenient means, thereby causing an air-space under the receptacle in which the baking or roasting is being done. Never use earth or sand on the bottom of the oven chamber, for by so doing a hole will soon be burned in the bottom plate.

If the range is to be used for a considerable length of time in one place, cooks will find a greater ease in cooking if a trench about 18 inches wide and 1 foot deep is dug along the side of the boiling-plate and oven. This will greatly lessen the labor in frying, baking hot cakes, etc. The inside edge of the trench should be about 1 foot from the range.

At times it may be necessary to install this range for cooking on a railroad car or on a wooden floor of a house, shed, etc. To install, erect a frame 12 inches high, 6 feet long, and 4 feet 6 inches wide; fill with sand and set the oven and boiling-plate on top of the sand, anchoring firmly in place. If clay is available, remove all stones, pebbles, etc., add salt water and sand; this foundation will become hard and solid and will prevent the burning of the floor.

Eliminating Trenches and Installing on Bricks Where Same Are Available.

Level the ground or use a brick floor. Set up range temporarily and mark outline on the level ground or brick floor, after which remove the range and parts and construct an 8-inch wall three bricks high on the outline and on line between the oven and boiling-plate for support of same. Assemble range on walls; under oven place brick on edge with three-fourths inch spaces for conservation of heat. Fire-box channel under boiling-plate No. 42 and gas chamber under Alamo attachment Nos. 42A and 42B to be formed between brick wall supports. Bank outside of brick walls at sides and back of range with clean earth, sloped about 1 to 2.

In a permanent camp (see Fig. 4) it is frequently necessary to evaporate waste under the range and to consume the garbage by the same fire. In this case dig a pit about 4 feet long, 3½ feet wide, and 2 feet deep to give a reservoir for waste water. Fill the pit with cobblestones, making large cavities, and leaving a fire-box and gas chamber under boiling-plate and Alamo attachment, as suggested for temporary installation. Place a length of stovepipe or any kind of chute at a convenient place anywhere along the side of the oven, arranging the rocks on which it rests so that there will be a free passage for the water. Pour in the waste water as it accumulates, retaining all solid matter by a wire screen, the solid matter to be burned in the trench under the boiling-plate, a little at a time, or, perhaps better, after the meal has been prepared. Great care must be exercised in garbage incineration to prevent injury to the metal of the range.

Reassembling for Transportation.

When breaking camp and reassembling for transportation, draw boiling-plate No. 42 forward. Unfasten bar-lock, pull apart, and remove 42A and 42B, and proceed as indicated above.

Remarks on Handling the Range.

If properly installed, the oven will not be too hot on the bottom for ordinary baking, owing to the fact that the fire does not strike the range proper. A tin will be found inside the baking chamber which may be used if for any reason the bottom of the oven is too hot. Should the bottom of the oven be too cold for efficient baking, the tin should be removed. Articles brought to a boil on the boiling-plate will continue to simmer if set on top of the oven or if placed close alongside the oven, the ground being leveled for the purpose. In this manner a dinner has been prepared for an entire battalion by adding the necessary utensils. A little care and judgment only is necessary to secure satisfactory results.

Coal should never be used when wood is obtainable. If possible,

even when coal is used, part of the fuel should be wood, for the use of coal alone will quickly destroy the range.

In permanent camp the space above and on the sides of the oven and the stovepipe should be cleaned at least once a week. This also applies to the boiling-plates. The range, boiling-plates, and pipes should be coated with a mixture of sugar and grease, this preservative preventing rusting and gives a neat, polished appearance to the range.

Army Field Range No. 2.

The Army field range No. 2, complete, weighs about 150 pounds with utensils and is designed to cook for 55 men. This range is without the Alamo attachment. It consists essentially of two parts—the oven, No. 61, and boiling-plate, No. 62. For transportation the boiling-plate is placed on top of the oven and the utensils (with flue) packed within the oven chamber.

On the march the range is set up ordinarily, from day to day, by simply leveling the ground to be covered by it, removing the boiling-plate and placing it in the position shown, the projecting collar being slipped into the space cut from one end of the oven for that purpose. The best results are obtained when using short wood, keeping the fire well toward the firing end of the boiling-plate; or, if using long sticks and branches, pushing them under the boiling-plate (never under the oven) as they are consumed.

If the range is to remain in place for several days (see Fig. A), it is best to dig a trench (except in sandy soil) about 16 inches wide by 6 inches deep, and of sufficient length for free service, say 5 feet. When installed, the trench should extend under the boiling-plate and about 3 inches under the oven—just enough to prevent choking of the draft. If the flame is allowed to play freely on the bottom of the oven chamber, it will become too hot for baking, and the bottom of the oven will burn out prematurely.

In a permanent camp (see Fig. B) it is frequently necessary to evaporate waste under the range and consume garbage by the same fire. In this case, dig a pit about 6 feet long, 2 feet wide, and 2 feet deep, to give a reservoir for waste water. Fill the pit with cobblestones, making large cavities and leaving a trench for fire-box under boiling-plate, as suggested for temporary installation.

Place a length of stovepipe, or any kind of chute, at a convenient place alongside of oven, arranging rock on which it rests for a free passage of waste water to pit.

Pour in the waste water as it accumulates, retaining all solid matter by a wire screen, the solid matter to be burned in the trench under boiling-plate a little at a time, or perhaps better after the meal has been prepared. Great care must be exercised in garbage incineration to prevent injury to the metal of the range.

To pack utensils and range for transportation, place bake-pan

FIG. 1.

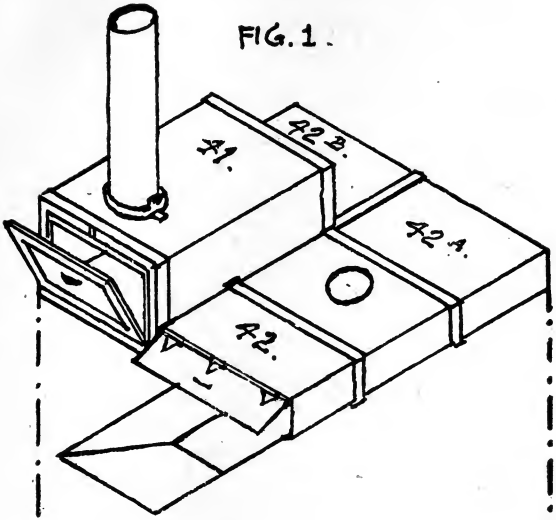

A1.
A2 B.
A2 A.
A2.

FIG. 2.

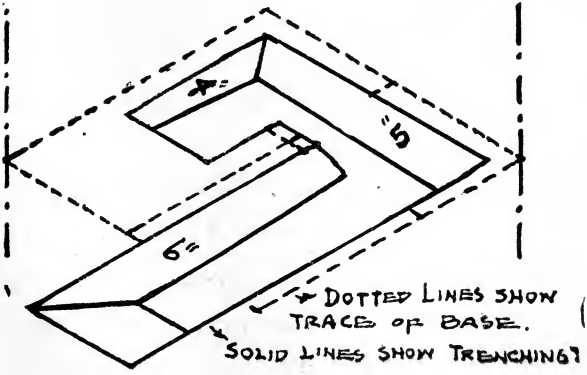

4"
5"
6"
Dotted Lines show trace of base.
Solid lines show Trenching

FIG. 3.

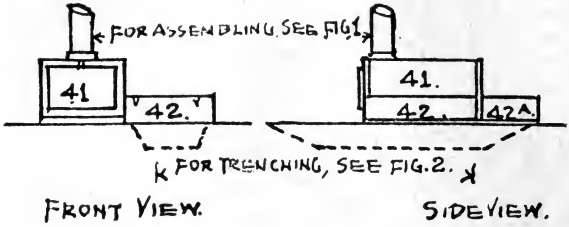


FIG. 4.

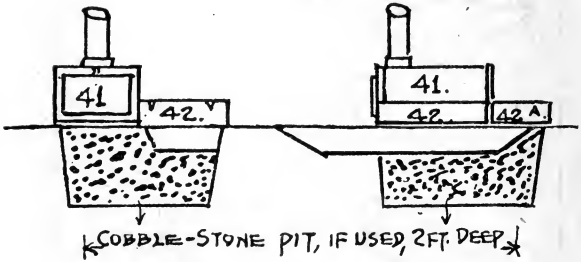


FIG. 1. SKETCH OF ARMY FIELD RANGE No 1, WITH "ALAMO" ATTACHMENTS, ASSEMBLED FOR USE, IN FIELD.

FIG. 2. SKETCH OF TRENCHING FOR SAME, " "

FIG. 3. " " RANGE, WITH OR WITHOUT TRENCH.

FIG. 4. " " " " TRENCH AND PIT.

FIG. A.

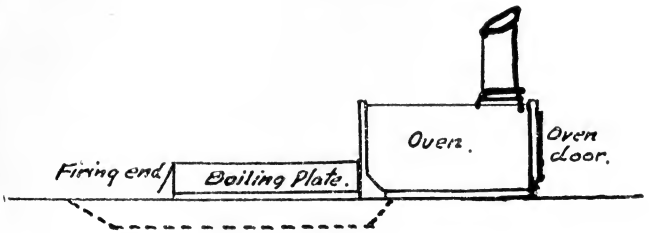
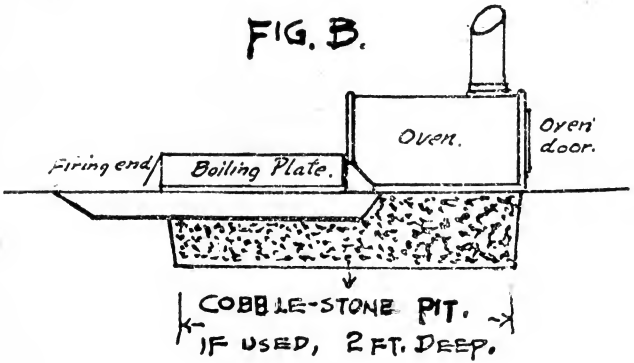


FIG. B.



SKETCHES OF ARMY FIELD RANGE No. 2.
ASSEMBLED FOR USE UNDER VARIOUS CONDITIONS.

FIG. A. SKETCH OF RANGE, WITH OR WITHOUT TRENCH.

FIG. B. " " " " TRENCH AND PIT.

No. 52 on the ground. Set boiler No. 50 inside of bake-pan No. 52; boiler No. 51 inside of boiler No. 50. Place tent-guards on bottom of boiler No. 51. Telescope the 4 joints of stovepipe. Inside of pipe place 2 forks, 2 knives, 1 sharpener, 2 spoons, 1 lantern (folding), and 1 skimmer. Place the joints of pipe containing utensils in boiler No. 51. Place dipper and elbow alongside the pipe. Place meat-saw in bake-pan No. 52 alongside of boilers. Cover boilers with lids No. 51 and No. 50. Place bake-pan No. 52 upside down over lid No. 50. Place pans in the range oven. Place the boiling-plate at the door end of the oven. Engage the flanges on the inner side of boiling-plate with the lugs on the door end of the oven. Fasten the hook on boiling-plate (firing end) to lug above the handle on the closed end of oven. The range is now secure for transportation. (441575.)

By order of the Secretary of War:

J. B. ALESHIRE,
Quartermaster General.

Approved:
GEO. ANDREWS,
The Adjutant General.

GENERAL ORDERS, No. 10.

WAR DEPARTMENT,
WASHINGTON, February 18, 1914.

I. The following instructions prescribing standard packing-boxes for shipment of quartermaster supplies between depots, posts, and stations, and from depots, posts, or stations to troops in the field, marks to be placed on such boxes and other packages for shipment, and marks on quartermaster supplies for issue, are published for the information and guidance of all concerned:

1. STANDARD PACKING-BOXES.

Packing-boxes 38 by 19 by 15 inches, outside measurement, meet nearly all requirements for escort wagon, motor truck, pack animal, or water transport, and accordingly all quartermaster supplies intended for field service will, when practicable, be packed in boxes of such dimensions, constructed of suitable light but durable material (ordinarily not exceeding ½-inch sides and 1-inch ends), and bound around ends and center when necessary with suitable hoop iron or wire, weight not to exceed 150 pounds gross.

Sacking or baling will be substituted for boxes whenever practicable, and when necessary to use smaller boxes, same should be exact subdivisions of corresponding dimensions of the standard box.

By reducing the number of articles the standard size and gross weight limit of box adapts itself to most quartermaster supplies.

2. EXCEPTIONS.

(*a*) In exceptional cases where conformity to the standard weight limit would destroy the unity of equipment and separate

component parts, the loss of any one of which would render the others useless, the gross weight of the standard-size box may exceed 150 pounds.

(*b*) In exceptional cases, where supplies are now packed in boxes or bales of less than 150 pounds gross weight, and the dimensions of which, determined by the nature of the supplies and the number of units necessarily carried, are within the standard dimensions, same may be packed as heretofore.

(*c*) In other exceptional cases the height of the standard box may be slightly varied, the length and breadth being adhered to.

(*d*) **Subsistence Stores.**—Unless otherwise directed, subsistence stores will, when practicable, be shipped in containers in which received or containers of similar dimensions. The weight of any one box of subsistence stores prepared for shipment to posts should not exceed 100 pounds gross. The gross weight of barrels may, however, exceed 100 pounds.

3. Marks on Packages.

Shipping.—When space permits, name or initials of consignee and address will be marked on top surface of package, box, etc., and on the ends U. S. number, contents, gross, tare, and net weight, name of seller or contraactor, or, if packed or repacked by Quartermaster Corps, date packed and initials of packers. Also, when practicable, the insignia of the Quartermaster Corps will be stamped on both ends of each box, crate, barrel, etc., of quartermaster supplies, and in addition, to readily distinguish subsistence stores, a crescent 3 inches in height and 2 inches in width will be stamped in red or other conspicuous color on both ends of all packages containing subsistence stores.

Exception.—Where it is not practicable to mark contents on boxes, etc., with stencil or brush, the contents will be listed on heavy paper by use of typewriter or pen, the list attached by means of tacks or paste, and the list then given a light coat of varnish to prevent obliteration by rain or moisture.

4. Specifications for Stencil Plates.

For marking property for shipment, a complete set of stencil plates consists of two full alphabets, Roman capitals (including the usual mark for "and"), and two series of numbers from 1 to 0. One set of letters and numbers is 1 inch, the other ½ inch high. They are cut on plates of sheet brass, No. 28, the larger 2¼ by 2 inches, the smaller 1¾ by 1½ inches. The upper edge of each plate is turned up so as to form a rim about ½ inch high. These plates are issued in japanned tin boxes, 8½ inches long, 4 inches wide, and 1¾ inches high, with hinged lids. Each box contains, besides the full set of stencils, a cake of marking paste in tin box, a sponge, and a stencil brush. Printed directions for the use of the latter materials are attached to the inside of the lid.

5. These instructions are not to be construed as prohibiting the use by supply depots of crates of suitable dimensions in the shipment of tentage and other supplies which experience has shown can be more advantageously and economically transported in that form of container.

6. The requirements of Section 4, Paragraph I., of this order, as to the use of stencil plate sets, do not apply to depots and other points equipped with stencil-cutting machines.

7. MARKS ON ARTICLES.

All non-expendable articles of quartermaster supplies hereafter procured will be marked with the letters "U. S. Q. M. C." in one of the three following sizes, according to the tool or article:

Size 1, with letters $\frac{5}{16}$ inch high.

Size 2, with letters $\frac{1}{2}$ inch high.

Size 3, with letters 1 inch high.

The marking of all tools will be done under the direction of the purchasing officer.

8. The following will be supplied to posts as a Class A supply:

Q. M. C., 1 inch.

U. S., 1 inch.

Numerals, 1 inch (from 0 to 9, inclusive).

Stencil plates, sets, complete.

Rubber stamp, insignia of the Quartermaster Corps, and crescent stencil plate sets.

9. OLD MARKS.

When boxes, crates, barrels, etc., which have been used in the transportation of supplies are again used as containers in the shipment of supplies, care must be taken that all old marks are obliterated. (2124765, A. G. O.)

II. Circular No. 9, Office of the Quartermaster General, 1909, is rescinded. (2124765, A. G. O.)

By order of the Secretary of War:

LEONARD WOOD,
Major General, Chief of Staff.

Official:

GEO. ANDREWS,
The Adjutant General.

GENERAL ORDERS, No. 26.

WAR DEPARTMENT,
WASHINGTON, August 16, 1912.

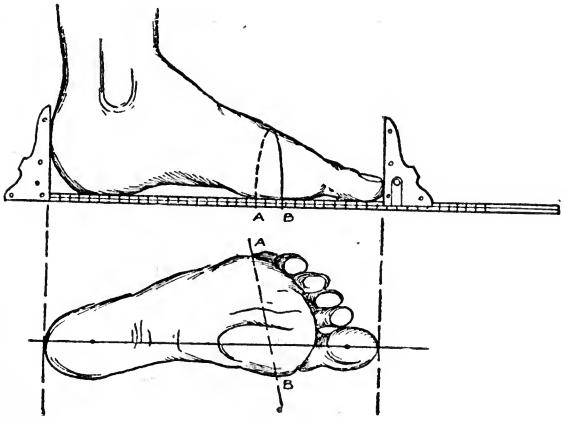
I. With a view to increasing the marching capacity of troops, company commanders will personally measure the feet and fit the shoes of men of their commands, and will be held responsible that the instructions herein contained are strictly followed.

All measurements prescribed herein will be taken with the soldier standing in bare feet and with a 40-pound burden on his

back, bearing the entire weight upon the foot to be measured, Balance may be preserved by resting the hand on a fixed object. The measurements of the foot, which must be taken to make suitable preliminary selection of the shoe to try on, are: (*a*), the length; (*b*), the circumference around the ball.

To measure the length the soldier will stand with foot upon the foot measure, furnished by the Quartermaster's Department, fitted in a slot on a board, the heel of the soldier fitting snugly against the heel-block. The movable block will then be pushed up until it touches the end of the great toe. The scale on the top of the measure, which is graduated in sizes, will then be read, and the proper length of the shoe will be determined, approximately, by adding 2 to the reading of the scale; thus, if the soldier's foot scales 6½, a shoe not smaller than 8½ should be tried on first.

To take the ball measure, pass the foot tape, supplied by the Quartermaster's Department, around the foot at the prominent tubercle at the base of the great toe and the prominent tubercle at the base of the little toe. The position of the tape is shown by the line A—B in the diagram below:



The tape should lie closely to the flesh, but should not be so tight as to compress it. Having taken the foregoing measurements, the shoe best suited to the foot will be determined by reference to

Circular No. 10, Quartermaster General's Office, April 6, 1912. For example, assume that the circumference of the ball is found to be 9¼ inches. In the table on page 28 of the aforesaid circular, under the heading "Marching Shoes," it will be seen that for a foot requiring an 8½ shoe a ball measurement of 9¼ inches corresponds to a D width. The size of shoe to try on for actual fitting is, then, in this case, 8½ D.

If the ball measurement found as above does not correspond exactly with any ball measurement given in the table, then the narrower of the two widths between which the measurement lies should be selected.

Beginning with the size and width thus tentatively selected, shoes will be tried on until a satisfactory fit is secured. Correct fit in waist and instep will be determined experimentally. To determine the fact of fit, the shoe will be laced snugly, and the soldier with a 40-pound burden upon his back will again throw his entire weight on one foot. The officer will then press in the leather of the shoe in front of the toes to determine the existence of sufficient vacant space in that region to prevent toe injury. Under no circumstances should this vacant space in front of the great toe be less than ⅜ inch; nor should there be pressure on the top of the toes. The officer will then grasp with his hand the leather of the shoe over the ball. As his fingers and thumb are brought slowly together over the leather, the shoe should feel snugly filled without apparent tension, while the leather should lie smoothly under the hand. If the leather wrinkles under the grasp of the hand, the shoe is too wide and a narrower width is needed; if the leather seems tense and bulging and the hands tend to slip over easily, the shoe is too narrow and a greater width is necessary.

It may be necessary to try on several pairs of shoes in this manner before an entirely satisfactory shoe is secured. A record of the proper size and width of shoes as determined above will be kept as provided in Circular No. 10, Quartermaster General's Office, April 6, 1912.

Measurements will be taken and shoes will be fitted as prescribed at least once in each enlistment, and the record will be changed from time to time, if subsequent fittings render a change necessary.

Sizes called for in requisitions will conform to the record, and the fact of fit of shoes issued on such requisitions will be personally verified in every instance by company commanders in the manner above prescribed.

No shoes will be issued to or worn by enlisted men while on duty which are not fitted in accordance with this order.

New shoes should be adapted to the contours of the feet as soon as possible. Shoe-stretchers, with adjustable knobs, to take

pressure off painful corns and bunions, are issued by the Quartermaster's Department.

All shoes should be properly broken in before beginning a march, but if this is impracticable, then the following is suggested, but not required:

The soldier stands in his new shoes in about 2½ inches of water for about five minutes until the leather is thoroughly pliable and moist; he should then walk for about an hour on a level surface, letting the shoes dry on his feet, to the irregularities of which the leather is thus molded in the same way as it was previously molded over the shoe last. On taking the shoes off a very little neat's-foot oil should be rubbed into the leather to prevent its hardening and cracking.

If it is desired to water-proof the shoes at any time, a considerable amount of neat's-foot oil should be rubbed into the leather.

Light woolen or heavy woolen socks will habitually be worn for marching; the socks will be large enough to permit free movement of the toes, but not so loose as to permit of wrinkling. Darned socks, or socks with holes, will not be worn in marching.

Company commanders, by frequent inspections throughout the year, will maintain the feet of their men in condition for proper marching. They will cause the proper trimming of nails, removal or paring of corns and callouses, relief of painful bunions, treatment of ingrowing nails, and other defects, sending serious cases to the surgeon.

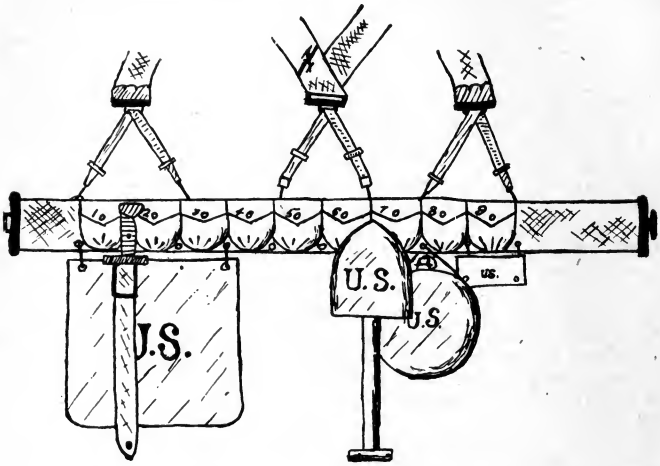
Before a march is undertaken by foot troops, company commanders will personally inspect the bare feet of their men. While on the march they will personally see each day that their men wash their feet as soon as possible after reaching camp, prick and evacuate blisters and cover such blisters or excoriations with zinc oxide plaster, supplied by the Medical Department, applied hot, dust the feet with the foot powder supplied by the Medical Department, and put on clean socks. Hereafter an undue amount of foot injury and disability from shoes will be regarded as evidence of inefficiency on the part of the officers concerned and as causes for investigation.

Post quartermasters will provide a place in the quartermaster's store-house where shoes may be fitted for the purpose of determining or verifying the record required by General Orders, No. 48, War Department, 1911. For the purpose of fitting, they will keep on hand at all times a complete series of each size and width of shoes furnished for issue. Shoes of this series will be put in stock and issued before they become unserviceable and will be replaced by new shoes, keeping the series always complete. Company commanders will report in writing to the post commanders every intance of failure to secure proper shoes for their commands or to obtain

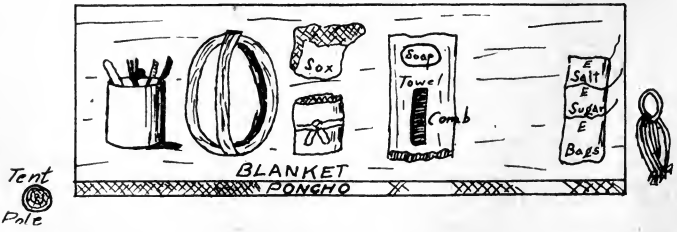
(*Continued on page 44.*)

CORRECT METHOD OF ATTACHING EQUIPMENT TO FIELD BELT.

Bayonet may be placed under haversack if full of rations.



CORRECT METHOD OF ARRANGING ARTICLES IN SHELTER TENT FOR INSPECTION.



Office of Inspector-Instructor,
National Guard of Arizona.

Campbell Stacey,
Instructor-Inspector.

PRESCRIBED METHOD OF CARRYING EQUIPMENTS ON FIELD BELT.

Haversack—Hooked in front of first cartridge pocket and in rear of third.

Bayonet—Hooked in rear of first cartridge pocket (left side) over haversack (under, if full).

First Aid Packet—Under the ninth pocket.

Intrenching Tool—Hooked in rear of sixth cartridge pocket.

Canteen—Hooked in rear of seventh cartridge pocket.

Suspenders—Hooked in front and rear of first and second and eighth and ninth cartridge pockets, and outside of fifth and sixth. Buckles to the front and coming up under strap (not over). Buckle on rear strap on right side.

Mess Pan, Etc.—In haversack.

Tin Cup—Will be carried in haversack.

ARRANGEMENT OF EQUIPMENT FOR INSPECTION IN SHELTER TENT.

Poncho—Folded as prescribed, on ground between pole and side of tent.

Blanket—Folded as prescribed, on top of poncho.

Cup, containing Knife, Fork, Spoon, and Toothbrush—On blanket next to front pole, handle to rear.

Mess Pan—Open, on blanket next to cup, end of handle to rear.

Housewife—Next to mess pan.

Socks—In rear of housewife (folded).

Towel—Neatly folded, with soap and comb on top.

Other Clothing—(If any.)

Salt, Sugar, and Coffee Sacks—On top of one another, but so arranged that all will show next to clothing.

Blanket Roll Straps—At end of blanket next to side of tent.

proper facilities for fitting the shoes as herein directed. Post commanders will investigate the reasons for, and be held responsible as far as lies in their power for the rectification of, such deficiencies.

A brief record of the number of such reports from company commanders and the reason for such deficiencies will be furnished to inspectors at each inspection of the post.

Inspections conducted under the provisions of Paragraph 913, Army Regulations, will embrace an inquiry into the manner in which this order has been complied with, and the report of inspections will include a statement of all instances of failure on the part of company commanders to secure proper shoes for their commands and the cause of such failure. (1856626R, A. G. O.)

II. A new pattern shoe has been adopted for the service which, when the old stock shall have been exhausted, will supersede the different patterns now on hand in the Quartermaster's Department. Hereafter, until the old supply is exhausted, requisitions for shoes will be filled from stock on hand, irrespective of pattern or finish. (1856626S, A. G. O.)

By order of the Secretary of War:

LEONARD WOOD,
Major General, Chief of Staff.

Official:
GEO. ANDREWS,
The Adjutant General.

IV. The section (page 3) of Paragraph I., General Orders No. 26, War Department, August 16, 1912, that prescribes the habitual wearing of light woolen or heavy woolen socks for marching, is amended to read as follows:

Light woolen or heavy woolen stockings will habitually be worn for marching, but commanding officers of organizations may authorize the wearing of cotton stockings in individual cases where the surgeon certifies to the fact that the wearing of such stockings subserves the best interests of the service. The stockings will be large enough to permit free movement of the toes, but not so loose as to permit of wrinkling. Darned stockings or stockings with holes will not be worn in marching. (2025438, A. G. O.)

By order of the Secretary of War:

W. W. WOTHERSPOON,
Major General, Acting Chief of Staff.

Official:
GEO. ANDREWS,
The Adjutant General.

CHAPTER III.

INSTRUCTION AND DRILL.

The instruction imparted to the average soldier in the National Guard is usually superficial, follows no well-defined scheme, and, in consequence, the men do not receive the amount of training that really can be given to a soldier of the Guard under our present system. We all know that the system is fundamentally wrong, but it is all we have; so, instead of damning it, let us try to do the best we can with the means at hand. If every officer in the Guard would do this, it is safe to assume that the discipline, training, and efficiency of the National Guard could be improved at least 50 per cent in a year.

The average officer of the National Guard must first earn his living and then devote his spare time to his company. Frequently he has not the time or experience to prepare a systematic course of instruction for training his company. The object of this little book is to place in his hands a system that has been thought out and put to the practical test in training a regiment in the National Guard, and has not been found wanting in any essential particular. If followed through exactly as laid down, the captain who uses it will find that his company has received a foundation upon which a solid military structure can be built.

Division of Time in Company Training.

Drills usually commence in September and continue until June, when summer camps or maneuvers are held. Drills are rarely held until some time after summer camp. The National Guard company commander can usually figure on thirty drills during this period, if his company drills every week. There are always events—automobile shows, dances, conventions, etc.—which, by utilizing the armory, interfere with drills; parades and holidays also cut down the time. Happy indeed is the National Guard captain who can confidently figure on thirty drills before going to camp.

The following schedule will enable you to divide your time as follows:

Thirteen recruit and squad drills	13
Seven company drills, close and extended order	7
Ten drills preparatory to target practice	10
Total	30

This leaves no time for bayonet exercise or first-aid instruction. It is assumed that each drill will be for 1 hour—the usual time. Bayonet exercise and first-aid instruction can be given only if you can prolong your drill ½ hour; this will give you 15 additional hours of drill; devote 11 of them to bayonet exercise and 4 to first-aid drill, each drill ½ hour.

You should also have non-commissioned officers' school at least 1 hour each week; this will give you 30 hours for this purpose. Devote 15 hours to Part II., "Infantry Drill Regulations," Paragraphs 350 to 707, inclusive; divided into 15 lessons, this will give you an average lesson of 24 paragraphs, which is not too long.

Devote 5 hours to map-reading. You scarcely have time to learn map-making. The best book on this subject that I know of is "Military Map-Reading, Field Outpost and Road Sketching," by Beach.

Devote 10 hours to "Small Arms Firing Manual, U. S. Army," 1913, Paragraphs 12 to 118 and Paragraphs 200 to 221, inclusive; this gives you 127 paragraphs, or an average lesson of 13 paragraphs, which is not too much to be assimilated.

It may be noted that no time is devoted to "Field Service Regulations"; you have not the time. The lectures 1 to 10 cover about all that your men would get out of them any way, and besides, they are not ready for a study of them yet. If you have the same non-commissioned officers next year (forlorn hope), it will be time to take them up then. It may be noted that this course only provides a course of instruction for the first year. It has been the experience of the writer that it is almost useless to prescribe a comprehensive course of training extending over more than one year, because your men in the Guard change so rapidly. If such a course is necessary, and you have honestly followed the above course, you will have gained enough experience to prescribe one for the needs of your company better than the writer can now do, not being familiar with your special needs and conditions.

It may be noticed that no time is allowed for pitching the large tents or for drill in Butts' Manual; you have not the time to waste on these. You will learn to pitch large tents in two days if you ever go into the field, and Butts' Manual is valuable **only** if given as a short daily drill; it has no value whatever if given once a week. It takes a long time to learn the movements correctly, and it is of no value to you as a show drill unless you can execute the movements in cadence. You cannot acquire this precision without slighting more important work.

In teaching bayonet exercise, complete your recruit, squad, or company drill first, and then devote the extra half-hour to bayonet exercise. More than half an hour at a time devoted to bayonet drill is too long. The men become tired and lose interest. First-aid instruction can be given in a similar manner.

The course outlined above does not allow enough drills to become perfect in the movements, but every movement can be taught, and it should not take your company long to attain a reasonable degree of perfection if you are ordered into the field and can drill your men daily. If you are so fortunate as to be able to drill your men for two hours a week or two drills of two hours each per week, you will have ample time to attain considerable perfection in the execution of movements. It will be noted that the schedule is very elastic. The more time you have at your disposal the more time you can devote to each movement, and that without altering your general scheme. If you can inculcate a good, healthy spirit in your men and get them interested in the work, you should not have very much difficulty in getting your men to drill three or four hours per week. I know of one company in the Guard that had such a good spirit that the men averaged seven hours' drill a week for two months, and that without any pressure from the captain. The men wanted to learn to be soldiers, and willingly gave the time. I have seen these men drill three and four hours on Sundays.

It is not claimed by the writer that the following course, with the time devoted to each subject, will develop trained soldiers, but it is believed that the time alloted to each is absolutely the minimum to produce any results at all. If you are so fortunate as to be able to give your men more drill, so much the better; but I believe that

if the course is followed, your men will have received a good, solid foundation upon which a solid military structure can be eventually built, and your men will have received more real systematic instruction than is usually given the National Guardsman.

Complete Recruit Course.

To be given also to every officer and man in the company who has not previously received it. It does not matter how long a man has been in the National Guard or how well drilled he is or thinks he is, he should take this complete course. If he really is a well-drilled man, it will not hurt him, and he will know his drill better than he did before; if he is not well drilled, it naturally follows that he needs it.

The basis of efficiency depends largely upon the foundation laid in recruit drill. Nothing is gained by slighting this very important instruction. No organization can ever hope to be efficient or rise above mediocrity whose recruit instruction is not thorough.

Remember, close-order drill is principally to impart discipline to your command. Unless your drill is very exact and snappy, and unless you correct every mistake that is made, you are wasting your time absolutely.

Extended-order drill is to teach your men to maneuver in the presence of the enemy. Unless you put life into it and explain the object of every movement and insist that each one be correctly executed, you are again wasting your time and will never attain efficiency.

Battle exercises are for the purpose of training officers and men in battle tactics; they must be well thought out beforehand, must be handled intelligently, and must always teach a military lesson.

FIRST DRILL.

Time, two hours.

Issue arms, equipment, and uniform. Don't take it for granted that every man is properly uniformed and equipped; inspect him and find out, down to the sight cover and oiler, brush, and thong in the butt of his rifle, whether he is properly equipped or not.

Instruct men how to salute, who to salute, and when to salute. (See Paragraphs 58 and 758, I. D. R.)

Teach men how to assemble equipment; this means that they

must know how the suspenders go on the belt and where each article of the equipment should be carried. The U. S. Ordnance Department issues a pamphlet, "Description of the Infantry Equipment," 1910, also one describing the infantry equipment, old pattern. You can get these by writing for them to the Chief of Ordnance, U. S. Army. Get them.

Men should be taught how to pitch the shelter tent. Nails can be driven in the armory floor to serve as tent-pins.

Men must be taught how to make up the blanket-roll, if you have the old-style equipment. (See appendix to first chapter.) The manual referred to above will show you how to pack the new model equipment.

The first question which will naturally arise in your mind is, "Can this instruction be given in two hours?" Yes, it can and has been repeatedly given in that time; but, in order to do this, you must have system.

Let us assume that you have a squad of eight men to receive this instruction or first lesson. The first sergeant will assign lockers to these men and give them a slip of paper on which is the man's company number. (Locker should bear this same number.) The men then report to the quartermaster sergeant, who will fit and issue uniforms to them. They then pass to the artificer, who will issue equipment and arms, taking up the slip of paper given to the men by the first sergeant. (This slip indicates to the artificer the number of the equipment that he will issue to each man.) Remember, each article of equipment should be marked with a number. For instance, the company number given to a recruit is No. 12. Every article of equipment issued to him should bear this number—shelter tent half, blanket, haversack, canteen, etc. If your equipment is marked in this manner, it will not get lost or misplaced. The men then pass to a sergeant, who will teach them to assemble their equipment. He then teaches them to pitch the shelter tent. Nails can be driven in floor for pegs. They are then taught to make up the blanket-roll. When the rolls are made up, the men are taken to their pegs in the company-room, shown how to hang the roll and equipment on them, and are then taken to the armory floor for drill; here they will be taught how to wear the uniform, how to salute, etc.

After this drill, they are shown how to place their uniform, etc., in their lockers in a neat and uniform manner.

SECOND DRILL.

The squad will be assembled in proper uniform and inspected to see that the men are wearing the uniform properly, that their leggings are on straight, and that every button is in place and buttoned, etc. Hat-cords must be habitually worn and sewed to the hat. Hats must be worn straight and properly creased. After this inspection, proceed with the drill. (Paragraphs 1 to 7 and 50 to 70, inclusive.)

In teaching the halt, it will be found that better results will be gotten if the preparatory command, "Squad," is given when the left foot strikes the ground; give the command "Halt" when this foot strikes the ground again. Men advance and plant the right foot and halt. In teaching recruits—and, in fact, in company drill—you will always get better results if you accustom the men to receiving the preparatory command when the left foot strikes the ground; give the command of execution when this foot strikes the ground again. The movement will then be executed in a prompt and uniform manner. At least half of the poor drills are due to the manner in which the instructor gives his commands. If you have a uniform system in giving commands and the men become accustomed to it, you will always get better results than by giving the commands in any old manner.

Don't allow men to drill in shirts; make them drill in blouses. Drilling in shirts in the armory makes men slouchy and careless. Under no circumstances should men be allowed to drill in civilian clothes. Now, don't slight this drill; make your instruction thorough, and do not advance men to the third drill until they are reasonably proficient in the second, and so on. You will save time in the end.

Recruits should be required to drill at least twice a week, three times if possible, and every night for the first two weeks would be better. New men are enthusiastic and anxious to learn; make the most of this while it lasts. If recruits only drill once a week, they advance so slowly that they soon become discouraged and lose interest in the drill and in their organization. It is better to have

one instructor for each batch of recruits. If you change instructors frequently, your recruits will not learn nearly so fast. The first lecture will be delivered to the men after this drill.

THIRD DRILL.

Men will be assembled in proper uniform and inspected as in the second drill. Review saluting and movements in second drill, then proceed with third drill. (Paragraphs 71 to 73, inclusive.)

In marching by the right flank, be careful to give the preparatory command when the right foot strikes the ground and the command of execution when the right foot strikes the ground again. The men advance and plant the left foot, turn to the right, and step off in the new direction with the **right foot.**

If marching by the left flank, give the commands on the left foot. The men advance and plant the right foot, turn to the left, and step off in the new direction with the **left foot.**

When marching to the rear, give the preparatory command when the **right** foot strikes the ground and the command of execution when the **right** foot strikes the ground again. Men advance and plant the **left** foot, face about to the right, and step off **promptly** with the left foot.

Give your commands in this manner: "By the right flank, **March;** One, two." "By the left flank, **March;** One, two." "To the rear, **March;** One, two, three." If this method is followed, men can be taught to execute these movements without hesitating or losing the cadence—a common error. When the men are well drilled, the counts **after the commands** would, of course, be omitted.

You must insist upon your men standing absolutely still in ranks. They must keep their head and eyes straight to the front, their hands down, and the thumb along the seam of the breeches. Insist upon these things. They all go for discipline and smartness. When you correct a man in the rear rank, don't allow half of the front rank to turn around to see what you are doing. Make them stand still in ranks. There is only one way to play this game, and that is the right way.

The second lecture will be delivered to the men after this drill.

FOURTH DRILL.

Men will be assembled in proper uniform and inspected, as in

previous drills. They will be taught the names of the principal parts of the rifle; not the intricate parts, but just the principal parts, such as butt, barrel, bolt, sights, trigger guard, etc. They should be given a short talk upon the necessity of keeping the rifle clean and in a serviceable condition at all times and they should be given some idea of how this is done. Don't give them too much, or they will not get any of it. Then proceed with the drill. (Paragraphs 74 to 84, inclusive.) The instructor should carefully study these paragraphs before going out to drill, no matter how well he thinks he knows the drill.

Impress upon the men the fact that in most movements in the manual of arms there is a right angle somewhere; see that they get it. For example, in **port arms** and **right shoulder arms,** the right arm forms a right angle at the elbow. In **port arms** a common error is to have the rifle cross opposite the left shoulder, instead of opposite the junction of the neck with the shoulder. Watch this.

In coming to the **port** or **right shoulder,** the rifle should be thrown up smartly and grasped with both hands simultaneously or nearly so. The common error is to raise the piece with the right arm, instead of throwing it up as prescribed.

In coming to the **order,** the piece must be lowered **gently to the ground,** and not jammed down. There should be scarcely any noise made. The rifle is carried to the right side smartly and **then** lowered gently to the ground. This does not interfere with carrying the left hand to the side smartly.

In executing the manual, the men must be impressed with the fact that they must not move their heads. In coming up to the **port** and **right shoulder,** the rifle must be grasped and held firmly with both hands. A common error is to allow the muzzle to dip down and to the left, sometimes striking the man on the left.

Make your men stand still in ranks.

The third lecture will be delivered to the men after this drill.

FIFTH DRILL.

Men will be assembled in proper uniform and inspected, as in previous drills. Review previous drills. Question men in regard to names of parts of the rifle. (Paragraphs 85 to 100, inclusive.)

In **parade rest** the common error is to place the right foot in

rear of the left; this is wrong; the right foot is drawn 6 inches straight to the rear. In coming to the **parade rest,** the piece must be turned on its toe, not on the heel. In order to do this, incline the rifle slightly forward when coming to **parade rest.** In resuming the **order,** the piece is also turned on its toe.

Men should be taught how to carry the piece at the balance. This form of **trail arms** should be habitually used in extended-order drill.

In fixing and unfixing bayonet, the muzzle of the rifle must be kept in place in front and center of body. Raise the left elbow to get room for drawing or returning the bayonet. The common error made is to extend the left arm to its full length. Remember, in fixing and unfixing bayonet you come to a complete **parade rest** first. The common error made is to slight this movement; men do not come to the complete **parade rest** before fixing and unfixing bayonet.

In coming to the position of **charge bayonet,** the most common mistakes are: weight of body not equally supported by both legs; one knee bent more than the other; point of bayonet too high; rifle not far enough to the front. Most men get the right hand opposite the right hip; this is wrong; the right hand must be well to the front and on a line with the **left** hip. Study the illustration in the "Manual of the Bayonet."

A very snappy way of executing **inspection arms** is as follows and does away with the ragged manner in which this movement is usually executed: (1) Port (2) **Arms.** (3) Inspection [place the right hand on the bolt handle] (4) **Arms** [open the bolt smartly]. (5) Port [close the bolt smartly] (6) **Arms** [pull the trigger]. After a few drills, your company will be able to do this like one man, and it is a very pretty and effective movement. It is valuable, because it teaches men precision and smartness; the other way teaches them to be careless, as it is next to impossible to execute this movement together.

Make your men stand still in ranks and keep their hands down and their heads still.

The fourth lecture will be delivered to the men after this drill.

SIXTH DRILL.

Men will be assembled in proper uniform and inspected, as in previous drills.

This drill will be entirely devoted to a review of all previous drills. Be careful to correct every mistake that is made. Stop the drill and make the correction at once. Remember, simply giving commands is not drilling men. You must correct every mistake. I have seen National Guard officers and non-commissioned officers stand in the center of the armory floor and give commands to a squad or company drilling and never correct a single mistake. They thought that this was drill, but it was not. I know of nothing that will ruin a command quicker than this practice..

It is better to be able to do four things correctly than it is to do twelve and none of them right. Don't delude yourself into the belief that you will become efficient by imparting superficial instruction to your men. You may think that perfection can be obtained by repetition, but you will not attain it unless your instruction is thorough, careful, and precise. Go slow at first, and you will be able to go faster later on; go too fast at first, and you will never advance beyond mediocrity and will never be really efficient.

Remember, close order is for discipline, and is useless for this purpose unless exact; extended-order drill is to teach your men to maneuver, and is worthless unless snappy. Battle exercises must be carefully thought out and must always teach a military lesson.

The fifth lecture will be read to the men after this drill.

General Remarks on Squad Drill.

Squad drill is generally neglected in the National Guard because its importance is not understood.

The squad is the unit upon which the entire system of close- and extended-order drill is based. It follows, therefore, that your squad drill must be thorough and exact; you can do nothing unless this is done.

You can take sixteen squads that never had a company drill, but know squad drill thoroughly, and teach them company drill in three hours; but you could not teach these same men company drill in three months if they did not know squad drill. Do you doubt this? Well, let us see.

Your company is in line. Give **squads right,** or **left,** or **right about**—what is it but squad drill and dressing on the guide? Take **right** or **left front into line,** for instance. The corporal of the first squad commands "Forward," and takes his squad forward until the captain commands "Halt." All the other squad-leaders command "Right oblique," then Forward, march," and "Squad halt" when they arrive on the new line—what is this but squad drill? **On right into line** is similar. In extended-order drill it is the same thing: the corporal commands "Follow me," and leads his squad to its place, when he deploys it. As far as the squads are concerned, it is all squad drill, so you see the men must know squad drill thoroughly.

Every minute spent on squad drill will save you twenty later on when learning company drill. You will find that this statement is not overdrawn.

You must have intelligent men for corporals or squad-leaders. Don't waste time on any man who cannot think quickly. If your corporals are efficient, your squads will be efficient, and it follows naturally that you will have an efficient company.

Do your lieutenants know squad drill thoroughly? Put them in the ranks, give them a squad, and see. I have found this method excellent. You can't teach drill until you know it yourself, and the best place to learn drill is in the ranks. I do not mean to let them drill a squad separately, although it is a good thing to let them do this also; but what I mean is, have them act as corporal in the ranks in company drill.

Squad drill should always be under arms.

Until your men know the School of the Soldier and the Manual of Arms they are not ready for squad drill.

Don't hurry. The more haste the less speed.

Remember, when anything happens to the corporal the private who has the most service immediately assumes charge. This rule is general. If the captain wants any other man to take charge of the squad, he will designate him; otherwise the senior private assumes charge without waiting for express orders to do so.

Remember, when any body of armed men is formed, the first thing that is done after the command "Fall in" is given is to inspect the pieces to see if any are loaded. Remember, the last thing that

is done before dismissing any body of armed men is to inspect the pieces. This rule is general, and this inspection must never be omitted.

Teach the rear-rank men to get their distance by raising the rifle, muzzle against back of front-rank men and comb of the stock 3 inches in front of the belt buckle of rear-rank men. From the muzzle of the rifle to the comb of the stock is about 37 inches.

In dressing, watch the left elbow. The common error is to let it incline to the rear, instead of keeping it parallel to your front.

Don't neglect teaching taking intervals and distances; it teaches a man where he belongs in the squad better than any other drill.

Make the rear-rank men cover the front-rank men accurately. A common error is not to do this.

SEVENTH DRILL.

Men will be assembled in proper uniform, under arms, and inspected, as in previous drills. (Paragraphs 101 to 115, inclusive.)

The instructor should read carefully the Drill Regulations explaining how arms are stacked, no matter how well he knows it.

The sixth lecture will be read to the men after this drill.

EIGHTH DRILL.

Men will be assembled in proper uniform, under arms, and inspected, as in previous drills. (Paragraphs 116 to 122, inclusive.)

COMMON MISTAKES.

In turning on the fixed pivot, pivot-man does not turn at once; usually waits for other men to come around. He must turn 90 degrees at once as soon as the command "March" is given, without reference to movements of any other man.

Rear-rank men usually execute movements the same as front-rank men; this is wrong. The movements of the rear rank are entirely different from those of the front rank. Study the book.

No. 3 or No. 2, as the case may be, is followed in column by Nos. 2 and 1 or 3 and 4; this is rarely done correctly.

Squad right about is simply **squad right** twice. The second change is not made until the man on the marching flank gets up on the line, then the pivot turns again. Usually the pivot-man does not wait, but turns too soon. In turning on the moving pivot, the pivot-man usually marks time in his place for two or three steps,

instead of immediately marching in the new direction at half-step. The rear rank in this case must turn on the same ground and in the same manner as the front rank.

Remember, in halting from **oblique march** men **halt faced to the front;** they do not halt and then face, but halt faced to the front. Give the command "Halt" when the left foot strikes the ground, and men should have no difficulty in halting correctly faced to the front. They advance and plant the right foot and the half face is made in bringing up the left foot.

The seventh lecture will be read to the men after this drill.

NINTH DRILL.

Men will be assembled in proper uniform, under arms, and inspected, as in previous drills.

Review of seventh and eighth drills.

Watch for and correct all mistakes. Watch for the very common mistake of men commencing to come to the **order** before the **halt** is completed. You can correct this tendency if you teach the men to halt and come to the **order** in five counts. For example: "Squad halt—one, two" (this completes the **halt**); "One, two, three" (this for the Manual). Give the command "Halt" when the left foot strikes the ground. They then advance and plant the right foot—this is **one;** they then bring the left foot alongside of the right —this is **two;** they then come to the **order—one, two, three.**

The eighth lecture will be read to the men after this drill.

TENTH DRILL.

Men will be assembled in proper uniform, under arms, and inspected, as in previous drills. (Paragraphs 123 to 132, inclusive.)

Some time should be devoted to teaching the squad to follow the corporal when he commands, "Follow me." Lead them about the armory floor in every direction and without further commands after this command has been given.

Note that in deploying as skirmishers in the squad the men always get to their places on the run. This rule is general. The captain may command, "As skirmishers, **Guide right.**" The company will execute this movement in quick time and the squads will move to their places in quick time; but when the corporal com-

mands, "As skirmishers, **March,**" the men habitually deploy on the run. This is not usually done; insist upon it.

Note the deployment and assembly are **made on the corporal.**

The ninth lecture will be read to the men after this drill.

ELEVENTH DRILL.

Men will be assembled in proper uniform, under arms, and inspected, as in previous drills. (Paragraphs 133 to 145, inclusive.)

Note that in the position of **aim** the right elbow is at the height of the right shoulder. The common mistake made is to have the elbow 5 or 6 inches below the shoulder; this will cause the piece to be canted. Watch this and make the men keep the right elbow up where it belongs. Note that in the position of **aim** the man first makes a half right face and then carries the right foot about 1 foot to the right; this will bring the right heel about 1 foot to the rear and about 3 inches to the right of the left heel. Common mistakes made are to place the right foot in rear of the left and to retain the left foot in place; if this is done, it places the men in a constrained position. You must insist that men make the complete half right face before they move the right foot to the right.

TWELFTH DRILL.

Men will be assembled in proper uniform, under arms, and inspected, as in previous drills. (Paragraphs 146 to 158, inclusive.) Give careful instruction in Paragraphs 152 to 158, inclusive.

Teach men to fire from windows, doorways, from behind boxes to represent intrenchments, from behind chairs to represent sandbags and loop-holes, etc. If you can secure six or seven gunny-sacks filled with earth, so much the better for this instruction. Make this instruction thorough, and be careful that each man understands exactly what you are trying to teach him.

Read the tenth lecture to the men after this drill.

THIRTEENTH DRILL.

General review of all previous drills. Time, two hours.

Watch for and correct all mistakes.

If the preceding drills have been thorough and your men are reasonably intelligent, they will now be able to take their places in

the ranks of the company without getting lost or "balling up" the formation.

This completes the recruit instruction.

In some cases it may be found necessary to repeat one or more of the drills for the benefit of the men who learn slowly. However, don't hold the entire squad back on account of one or two men, as it kills their interest.

General Remarks on the Preceding Drills.

The instructor should always read over the drill in the Drill Regulations before he goes out to drill the squad. This is very necessary.

Don't detail a man to drill recruits who cannot talk and explain things clearly. Don't detail a man who is not well drilled himself.

Don't allow the instructor to waste time at rest. If you want to rest the men, change the movement or review previous drills. Your time is very short; make the most of it.

Don't be afraid of giving the men a hard drill; recruits joining the Guard expect it, and are disappointed and lose interest if the drills are not sharp and snappy.

No man should be allowed to take his place in the ranks of the company until he has had the complete recruit course. Don't violate this rule; you will never get anywhere if you do, and your company can never become efficient. You can't teach men these things in the ranks of the company; they must be learned in the squad.

The object of the lectures is to give the men some theory along with their practical instruction and to impress upon them the fact that there is more to their business than simply learning the movements laid down in Part I. of the Infantry Drill Regulations. It is not expected that every recruit will get every point brought out in the lectures, but the officers and non-commissioned officers will get these points thoroughly impressed upon their minds in drilling recruits, and this will be an enormous gain in efficiency in itself.

The company commander should have the cards on "Rules of the Game," "Sentinels' Outpost Orders," and "Instructions for

Patrols" printed in convenient size to be carried in the pocket, on heavy cardboard, and these cards should be issued to every man in the company when the corresponding lecture is read. You will find that you will impart an enormous amount of military information to your men in this simple manner. You get them to thinking and talking among themselves, and when you have attained this, improvement is sure to follow and be rapid.

One word more. All National Guard troops are careless in saluting. The salute is one of the most important aids to enforcing discipline. Insist that your men salute properly and smartly, and never overlook the slightest dereliction in this matter. If your recruits are properly instructed in saluting, you should never have any serious trouble in enforcing the salute. Officers must, however, insist upon the salute being rendered at all times, and must be careful to return **properly** the salute of enlisted men. Nothing is so demoralizing to a command as having officers negligent and careless in returning the salutes of enlisted men. Officers must salute each other; this is important also. A visiting officer invariably judges the discipline of your command by the manner in which they salute, and quite properly too, because I know of nothing that shows the standard of discipline in an organization more clearly than this.

See first part of this chapter in regard to time devoted to teaching recruits bayonet exercise.

CHAPTER IV.

COMPANY DRILL.

First Drill.

Paragraphs 159 to 175, inclusive. (Inspect the company, as in recruit drill.)

The captain and lieutenants should study carefully (before commencing company drill) Paragraphs 159 to 175, inclusive. Now I don't mean that they should read this part superficially; I mean that they should read and study these paragraphs carefully before attempting company drill.

The diagrams on page 46 should be memorized so that there will never be any question in your mind as to where any man in the company belongs. Remember, each man has a definite place in line and in column; see that he stays there. The most common error is to sprinkle men along in the line of file-closers, and generally they do not know where they belong.

Your first company drill should be devoted to forming your company properly and carefully explaining to each man exactly where he belongs, both in line and in column of squads and column of platoons. Don't attempt to maneuver in this first drill. Devote the entire hour to teaching officers and men where they belong and how they get there. You will find that it will be time well spent.

When the company is first formed, squads and platoons are given a number. These designations are permanent, no matter where the squad or platoon is or how it is facing; that is, the second squad is always the second squad and the fourth platoon is always the fourth platoon. You can maneuver your company so that you can place the first and fourth platoons in the center of the company, but they are always the first and fourth platoons and will be designated as such in commands.

Second Drill.

Paragraphs 176 to 186, inclusive. (Inspect the company as in recruit drill.)

Note that in **company right** the right-flank man is the pivot

and that the guide steps back on the line. In **company right turn** the guide is the pivot and initiates the turn. A common mistake is to execute both movements in the same manner. Watch this. In **company right** the right-flank man must turn ninety degrees to the right at the command "March," and not wait for the man on his left. Caution the left flank of the company not to increase the cadence or length of step; you will wait for them.

In **right turn** see that the guide turns at once at the command "March" and takes up the half-step without waiting for anyone else. The usual error is to turn to the right too slowly, and mark time for the first two or three steps, and wait for the two or three men on his left to get up on the line before he advances.

Note that in **company right** the rear rank of the first squad executes the movement in a different manner from any of the other squads. All the other men in the rear rank move straight to the front four paces before they oblique to the right.

Note that in **right turn** the rear rank executes the movement on the same ground as the front rank and in a similar manner.

THIRD DRILL.

Repeat second drill. Watch carefully for mistakes and correct each one. Never under any circumstances fail to correct a mistake as soon as made.

FOURTH DRILL.

Paragraphs 187 to 193, inclusive. (Inspect the company as in previous drills.)

Note that the leader of each unit gives certain commands. This means **squad** leaders if the company is in column of squads, and **platoon** commanders if in column of platoons. Require your squad and platoon commanders to give their commands so that they can be distinctly heard by you, and see that the commands are given promptly.

Note that the movement is executed at the command "March" given by the captain. The leader of the first unit does not give the command "March"; his unit executed the movement at the command "March" given by the captain. The leaders of all other units give the commands "Right turn" and "March" when it is time for

their units to turn. The leading unit halts at the command "Company halt," given by the captain. Its leader then commands "Right dress." The other units are halted by their leaders when they arrive on the line. They also give the command "Right dress." The command "Front" is given by the captain after the last unit has arrived on the line and has dressed. His post in dressing the company is two paces from the right or left flank, as the case may be.

Caution units in rear of the first not to try to catch up with the first unless the command "Double time" has been given. If the movement is executed while marching in double time, its execution is similar to the movement in quick time.

In the movement **front into line** from column of squads or platoons, the previous remarks in regard to the movement **on right into line** apply.

See that the leaders of subdivisions give their commands promptly. The most common mistake made is that corporals fail to give the commands "Halt" and "March." They usually give the preparatory command, but fail to give the command of execution. Another common error is that subdivisions do not wait for the commands of their leaders. Insist that they make no movement until they get the commands of their corporal or platoon commander.

Don't allow the units in rear to catch up with the leading units. The distance between squads must be maintained until they reach the line. These movements are called "successive formations." The units are supposed to arrive on the line in succession.

Another point: Don't allow leaders of subdivisions to give the command for dressing until their units have completed the **halt** and **order arms.** If they give the command "Dress" before these movements are completed, you will always have a ragged execution.

These are all small points, but you must observe them if you want precision and a snappy drill. Remember, if your close-order drill is not precise and snappy, it is worthless, and will defeat the object for which given—namely, to impart discipline.

Paragraphs 194 to 197, inclusive, are not included in any of the drills. These movements have little, if any, value and require lots of practice before they can be executed without confusion. The National Guard has not the time to waste on these movements.

If it is ever necessary to use a column of twos, you can get this formation by forming your company in line and then giving "Right face."

You can get a column of files by deploying as skirmishers and then marching by the flank, and it takes no longer than forming right by file from column of squads. To assemble your company afterwards, give the command, "Assemble on the first squad in column of squads; **March.**" You will then be back in column of squads, and it takes no longer than the movement **squads front into line.**

EXTENDED-ORDER DRILL.

General Remarks.

Officers and sergeants should read carefully and thoroughly memorize Paragraphs 199 to 205, inclusive. Never go out for extended-order drill without re-reading these paragraphs.

Remember, you have but three commands for deploying your company—"Guide **right, left,** or **center**"—and these are sufficient. Your company can be deployed in any direction by these commands. I will illustrate.

You are marching north and want to deploy to your front: Give the command, "As skirmishers, **Guide right** or **left.**" This will throw your line to the right or left front.

You are marching north and want to deploy to the northeast or northwest: "Column **half right** or **half left;** As skirmishers, **Guide left** or **right.**"

You are marching north and you want to deploy to the east or west: "Squads right or left; As skirmishers, **Guide right** or **left.**"

You are marching north and you want to deploy to your right rear: "Squads right or left about; As skirmishers, **Guide right** or **left.**"

If you want to deploy in an oblique direction, give the command, "Column **half right** or **half left,**" after wheeling about by squads.

If you want to deploy on both sides of the road upon which you are marching, give the commands, "As skirmishers, Guide center." (You are in column of squads.) The center squad de-

ploys on the road, the squads in front of the center squad move to the right and deploy on the line, the squads to the rear of the center squad move to the left front and deploy on the line.

If you want to deploy to the rear, give the command, "Squads right or left about," and then execute the movement as above explained.

Remember, the squads in rear of the center squad **always go to the left front.** This rule is general. It does not matter whether the right or left of the company is in front.

Remarks on Handling the Company After It Has Been Deployed.

Your company is in line, deployed, facing north, and you want to open fire to your rear: **About face, Fire at will.**

Your company is in line, deployed, facing north, and you want to change front to the east: **Company right**, or **Company right, Double time, March.** Same to change front to the west. To change front to the right or left rear: **About face, Company right** or **left.**

After a little practice, you should soon be able to throw your company in any direction promptly and without the slightest confusion.

FIFTH DRILL.

Paragraphs 206 to 211, inclusive.

The Drill Regulations do not provide for assembling by squads, but it is not contrary to their spirit to do so, and I have found that it is a very good exercise to impress upon men the fact that the squad is the unit, and they must look to their corporal for commands and direction. This can be done by the captain giving the command: **1. Assemble by squad, 2. March.** At the preparatory command the corporals command, "Squad assemble." The movement is completed at the command "March," given by the captain. Squad-leaders do not repeat the command "March" unless it is necessary.

To deploy the company again, the captain commands: **1. As skirmishers, 2. March.** Corporals repeat the preparatory command, but do not repeat "March" unless necessary. Remember, squads deploy and assemble on the corporal.

To assemble the company from a line of squads, command: **1. Assemble to the right, 2. March.** The corporal of the first squad

commands, "Stand fast"; the corporals of the other squads command, "By the right flank." The movement is completed at the command "March," given by the captain. Each corporal halts his squad when in place and commands, "Left face." It is not usual to give the command for dressing when drilling in extended order.

Being in line, to form skirmish-line: 1. **As skirmishers, Guide right,** 2. **March.** The corporal of the first or right squad commands, "As skirmishers"; the corporals of all the other squads command, "By the left flank." The movement is completed as the command "March," given by the captain. Each corporal commands, "As skirmishers, March," when his squad is where it should be deployed. It is not necessary to command "Halt" or "Right face" before this command. The men deploy on the corporal and dress without command. In deploying on the center, the movement is executed in a similar manner. Squads to the right of the base squad move to the right, those to the left move to the left.

Being in column, to deploy as skirmishers: 1. **As skirmishers,** 2. **Guide right** or **left.** The corporal of the leading squad commands, "As skirmishers"; all the other corporals command, "Follow me." The movement is completed at the command "March," given by the captain. Corporals command, "As skirmishers, March," when about two paces in rear of their place in the line. The men halt on the line without command and dress. If this movement is executed on the center squad, corporals in advance of the center lead their squads to the right rear and then place them on the line. Corporals in rear of the center squad lead their squads to the left front and place them on the line as above explained.

If marching in column of files or twos, to form skirmishers to the front: 1. **As skirmishers,** 2. **Guide right** or **left.** Each corporal, except the corporal of the leading squad, cautions, "Left oblique" or "Right oblique," if the movement is **guide left.** This caution of the corporal's is very necessary and will prevent much confusion.

Being in skirmish-line, to assemble: 1. **Assemble to the right,** 2. **March.** The corporal of the first squad commands, "Squad assemble"; the other corporals caution, "By the right flank." The movement is executed at the command "March," given by the captain.

To increase intervals: 1. **As skirmishers, At five-pace intervals, 2. Guide right, 3. March.**

To decrease intervals: 1. **As skirmishers, At two-pace intervals, 2. Guide left, 3. March.**

Intervals can be increased or decreased on the center squad by commanding "Guide **center**" instead of **"right"** or **"left."**

In executing these movements, men move by the flank if at a halt, or by the oblique if marching.

Corporals should supervise their squads. The corporal of the base squad is the guide. Remember, the guide in extended order is habitually center. It does not, however, become center until any deployment is completed. It is a very wise precaution for sergeants in the line of file-closers to observe the movement and caution, "Guide center" when the movement is completed. Men on the line rarely know when the guide becomes center from right or left unless this is done. This simple precaution will prevent much confusion.

Some officers may think that I have gone into detail unnecessarily in explaining these movements, but in answer I will state that I have found it absolutely necessary in training new troops and especially newly-appointed officers. Of course, they would all work these points out themselves in time, but **remember**, in the Volunteers and in the National Guard our time is **limited.** Why make an officer work these things out when he can be shown in five minutes?

SIXTH DRILL.

Paragraphs 212 to 220, inclusive.

Don't forget your **combat patrols.** Never have a drill or practice an attack without sending out your right- and left-flank combat patrols. In action they should be out at least 500 yards; for drill they can be closer in, but be careful to explain each time why they are so close to the line.

What is a **combat patrol?** A combat patrol is a patrol that is always sent out from a deployed line or an advancing column to protect your command from surprise or fire on the flank. For a company a squad of four men is usually sufficient, although circumstances might arise when it would be necessary to have a stronger force. If the **combat patrol** encounters the enemy or is attacked,

it must resist to the last man until the line or column has had time to prepare for the unexpected attack.

Remember, the squad column is never used to provide security against artillery fire. This formation is more vulnerable to artillery fire than the deployed line. It is useful only when passing through broken ground or underbrush or trees.

The platoon column offers more security from artillery fire, but to secure the best results the heads of the columns must not be on the same line. You can secure this formation by ordering platoons forward at intervals. There should be at least 100 yards distance between the heads of the columns. I am not speaking of intervals, remember. The interval between platoon columns will be governed by the interval that you had between skirmishers before you ordered platoon column.

SEVENTH DRILL.

Paragraphs 221 to 224, inclusive.

The captain should carefully study Paragraphs 225 to 257, inclusive, and Paragraphs 290 to 236, inclusive.

The Regulations say: "A captain uses his platoons in attack like a major uses his companies; due allowance being made for their difference in strength."

In teaching the different methods of advancing by rushes, it is better to first teach the movements at a walk, first carefully explaining to the company just what you are trying to do. When the movements are well understood, execute the movements in double time and finally at the run, which is the way they should be executed in action.

General Remarks on the Preceding Drills.

If the course of drills outlined above has been carefully followed and the instruction has been thorough, your company should now be ready to take up training for combat.

It may be found necessary to review some of the drills before passing to the next one, but this will depend upon your ability as an instructor and the intelligence of your men.

Let me caution you again to be thorough in whatever you do. Do not advance to the next lesson until the previous one is well un-

derstood. You will save time in the end and have a well-trained company in addition.

The fault of all National Guard troops is to attempt to go too fast, and the instruction given is rarely systematic or thorough. This is a great mistake. It is better to be able to do four things well than to be able to do twelve things and none of them correctly. If you can do four things well, you will in time learn the others; but if you are not able to do anything right, there is very little hope for you.

This book is not a treatise on tactics or strategy. It prescribes a course of training for the recruit and for the company. If the things laid down herein are well learned, you are ready for higher training; but if your recruits are not thoroughly trained and you cannot handle your company, it is folly to attempt anything higher.

The amount of training that you can give your company in battle tactics depends in a great measure upon the time and ground available for the purpose and cannot be prescribed or foreseen.

The course outlined in this book, with your target practice, both gallery and range practice, and instruction in bayonet exercise and combat, it is believed, will keep you pretty busy during the fall and winter and, if followed systematically, should prepare you for your summer camp maneuvers. The average company in the Guard fails to get the most benefit from summer camps and maneuvers because it has to learn many things that should have been learned in the armory beforehand.

Every soldier in your command should receive at least four hours' instruction in first aid during the first year of his service.

Your gallery and range practice are usually prescribed by State Regulations. In the absence of these, follow the course laid down in the "Firing Manual, U. S. Army," 1913; but here, again, make your instruction systematic and thorough. The following course is suggested:

Preparatory Training for Target Practice.

Four drills in sighting—three with sighting-bar and one with the rifle in a rest.

Two drills in position and aiming exercises. Don't slight these; they are very important. No man can learn to shoot until

he has learned to hold the rifle correctly. Insist upon accuracy in these drills, and teach every firing position.

Four drills in gallery practice.

Each of the above drills should be for one hour.

If the instruction imparted has been thorough, your men will be ready for range practice. The amount of range practice you will be able to give your men will depend upon time, money, and circumstances, and cannot be prescribed. However, give them all you can, but don't slight your other instructions; they are equally important.

If you are so placed that you have to choose between drill and target practice, devote your time to drill. More battles have been won by maneuvering and discipline than have ever been won by shooting.

Instruction in Bayonet Fencing and Combat.

Your instruction in bayonet exercise, to be of any value, must be thorough. The men must be taught correctly each movement. It is necessary to pay particular attention to position guard; this is usually neglected.

The following course outlined lays down a preliminary course in bayonet training and also an advanced course for those of your men who are ready for it. But here, again, don't go too fast.

Don't make your drills too long. One-half hour is sufficient.

BAYONET EXERCISE.

(Time, one-half hour.)

FIRST DRILL.

Paragraphs 11 to 22, inclusive, "Manual of the Bayonet," 1913.

The usual mistake made in coming to the position of **guard** is to have the weight of the body all on one leg instead of equally distributed on both. Both knees must be bent equally. The body must be erect upon the hips. Most men either lean to the front or to the rear. Both are equally bad. Study the illustration in the Manual.

Impress upon the men the fact that bayonet fencing is like

boxing—you must be evenly balanced on the feet and be able to move in any direction quickly without it being necessary to shift the weight of the body from one leg to the other.

SECOND DRILL.

Paragraphs 23 to 28, inclusive.

Study the illustrations in the Manual.

Require the men to make the movements with life and put force into their thrusts and lunges. They must be made with force and life; otherwise they are of no use whatever.

THIRD DRILL.

Paragraphs 29 to 36, inclusive.

FOURTH DRILL.

Review of first, second, and third drills. Be careful to correct all mistakes.

FIFTH DRILL.

Paragraphs 37 to 42, inclusive.

SIXTH DRILL.

Paragraph 43 only. Invent combinations.

SEVENTH, EIGHTH, NINTH, TENTH, AND ELEVENTH DRILLS.

General review of all drills and combined movements.

General Remarks.

Paragraphs 46 to 114, "Manual of the Bayonet," should be studied, and the article on bayonet fighting, republished from the *United States Infantry Journal*, should be carefully read by officers and sergeants before commencing bayonet exercise. This will give your instructors a better idea of how to direct bayonet training and impress upon them the necessity for this very important instruction.

The above schedule, if carefully followed, will give you an elementary course in bayonet training, and the article in Chapter V. will give you an advanced course, should one be desired.

Study the illustrations carefully and they will give you a better idea of the positions and movements than you can get from the text alone.

CHAPTER V.

PRACTICAL SUGGESTIONS FOR TRAINING A COMPANY OF INFANTRY IN BAYONET FIGHTING.

Republished (by permission) from *U. S. Infantry Journal*, 1914.

"It is impossible to shoot an enemy out of a position."—*Paragraph 251, Field Service Regulations, 1913.*

"Confidence in their ability to use the bayonet gives the assaulting troops the promise of success."—*Paragraph 471, Infantry Drill Regulations, 1911.*

"Only the offensive wins."—*Paragraph 511, Infantry Drill Regulations, 1911.*

"Fire action (in night attacks) should be avoided in offensive operations. In general, pieces should not be loaded. Men must be trained to rely upon the bayonet and to use it aggressively."—*Paragraph 561, Infantry Drill Regulations, 1911.*

"A force which makes a vigorous bayonet charge in the dark will often throw a much larger force into disorder."—*Paragraph 564, Infantry Drill Regulations, 1911.*

At Cerro Benego, on June 13, 1862, two companies of French infantry, numbering 140 men, charging at night with the bayonet, drove from their position a division of 6,000 Mexicans, inflicting a loss of 250 killed and wounded, and made 200 prisoners, captured 3 mountain guns and a number of flags. The French in this engagement lost 34 men.

How many officers of infantry appreciate the value and importance of the paragraphs quoted above and are familiar with the remarkable success of the 140 French infantrymen trained to use the bayonet in their fight at Cerro Benego?

Exactly the same thing might happen to-day on a dark night under similar circumstances. And yet there are still some who believe that the bayonet is an obsolete weapon.

In every battle of the army of General Okus, from Nanshan to Mukden, in the Russo-Japanese War, a part, at least, of every position was carried by assault, and in the army of Kuroki the bayonet is reported to have been resorted to more extensively than in the army of General Okus.

It is reported that in the recent Balkan troubles the Bulgars, and later the Greeks, made good use of the bayonet.

At the annual inspection of the 21st Infantry at Vancouver Barracks, in 1913, the officers of the regiment were thoroughly satisfied with the instruction which had been given and with the results obtained, with the exception of bayonet fighting. It is safe to assume that the showing made by the regiment in that respect was equal, if not superior, to that usually made in this subject by any infantry regiment; but it was so far behind the showing made in all other subjects that it was thought best to devote special attention to this subject during the winter instruction from November to March, 1913–14.

It was decided to detail one lieutenant or sergeant from each company to take a special course in this subject, for the purpose of producing at least one competent instructor in each company and in order to make the instruction imparted in the regiment uniform.

General Order No. 13, 21st Infantry, October 15, 1913, contains this paragraph:

"3. During the month of November one officer or sergeant from each company will report to Captain Cromwell Stacey, 21st Infantry, from 9:45 to 10:45 a. m. daily, except Saturdays and Sundays, to be trained as instructors in bayonet fencing."

Pursuant to the above order, one sergeant reported from each company. It was found impracticable to detail lieutenants, on account of shortage of officers, other duties, etc.

The sergeants detailed were excused from all duty that would in any way conflict with the instruction, because it was desired to have every man present at each lesson. Great care was taken not to tire the men at first. Instruction was sharp while it lasted, and the rests were frequent, but short. I have found that men get disgusted with too much rest, the same as they do if the drill is too long without rests.

Men were encouraged to ask questions and to find out why. This privilege was not abused. It must be remembered that all of these men were selected sergeants and exceptionally good men.

It may be remarked that it will be useless to waste time on any man who is not mentally alert and physically sound, strong, and

quick. It is also useless to select a man for instructor who is not a very close observer, because, while he may know the movements thoroughly himself, he may not be able to see at a glance whether a man has the correct position. I have seen many officers and non-commissioned officers who would have to make a minute inspection of every man before they could tell whether his position was correct or not. Such men, no matter how good they may be in other respects, are totally unfit for instructors.

An instructor should be able to cast a glance over his squad or company and see instantly whether each man has the correct position.

Instructors must be able to talk. Many good men know a subject, but are totally incapable of imparting their knowledge to others.

An instructor should be patient. Many men try as hard as they can and yet are not able to comprehend movements at once. Such men must not be growled at or discouraged. They are the very ones who need instruction the most.

It was impressed upon the sergeants at every opportunity that the bayonet instruction was in no sense a calisthenic drill. The object of bayonet instruction was to teach a man to kill his opponent in personal combat in the shortest possible time.

In teaching the thrusts, lunges, and throw point, men were impressed with the fact that they had to put force behind the movement in order to kill their man. If they did not execute their movements correctly at drill, they would not do them properly when they were required. They must form the habit of executing each movement correctly; then, and not till then, could they feel safe behind their point. They were also impressed with the fact that their opponent would, in all human probability, be as badly scared as they were, and if they would only keep cool and use their heads, they would have no difficulty in defeating him.

Bayonet instruction must be systematic. Proper instruction in bayonet fighting will never be obtained by giving two or three hours' instruction in the subject a month. Squads or platoons should be placed at this work and given not less than twenty hours' consecutive instruction—say twenty lessons. Most instructors

make the mistake of placing the plastrons and masks on the men and starting them in on combat before they know the rudiments of fencing. This is a vital defect, as it is very difficult later to eradicate faults in position and execution acquired in this manner.

No man should ever be allowed to engage in combat until he has had at least fifteen hours' instruction in fencing, and this, it must be remembered, after he has received the **usual** amount of instruction **usually** given to a recruit in this subject.

There is a pernicious custom in the Army of not giving a recruit any instruction in bayonet exercise until he is proficient in the Manual of Arms. Why? Learning the Manual of Arms, the loadings, firings, and marching, have no connection with bayonet exercise. There is no reason why a recruit should not receive some instruction in bayonet exercise the first day that he has a rifle placed in his hands. In my company, in recruit instruction, I always devote part of each day's drill to bayonet exercise. One-half hour is sufficient, but that does not mean twenty-five minutes' rest and five minutes' instruction. Before good results can be obtained, you must impress upon the men that this instruction is important—very important—and ranks next to instruction in rifle practice.

Pointing and aiming drill prepares a man for range practice, but he is not a competent rifleman until he has had that practice. The bayonet exercises taught on the drill-grounds hold the same relation to bayonet fighting that pointing and aiming drill does to range practice. It follows, therefore, that a man is not a competent bayonet fighter until this instruction has been supplemented by thorough instruction in bayonet fencing and combat. It is also impossible to make a competent bayonet fencer by giving him instruction in bayonet exercise on the drill-ground alone. He must cross bayonets with an opponent before he can make use of the movements taught.

The movements laid down in the Manual are good, but there are not enough of them. Paragraph 95, "Manual of the Bayonet," is elastic, but I believe that better results would be obtained if more movements were included in the Manual itself. If you have an instructor who has a knowledge of foil fencing, he may be able to

fill up the gaps; but he should also have a knowledge of broadsword work, so that he will know what cuts a cavalryman will likely use.

I believe that the Manual is deficient in the following movements:

No short thrusts are taught. Short thrusts are very useful sometimes.

No parry is taught for a cavalry **right low cut** (**right cut** against infantry). You cannot parry this cut with a **parry high** or a **parry right.** The same thing applies to the **left low cut,** cavalry.

The **throw point** is an excellent attack if properly used, and it is hard to parry if made with life.

Men are told that they can make a return from the low or high parries, but they are not told how to do so.

The average man is not able to evolve a correct method from his inner consciousness; and the result is that most men invariably execute these movements incorrectly and ineffectually in consequence.

Left point should be taught. It is much more effective than changing front to the left and then thrusting or lunging. It is a very nasty attack and is hard to parry. It is also extremely effective in a melee.

Men are not taught to get upon the right rear of a lancer. This is important. It is all right to gain the left rear of a man armed with a saber, but you don't want to get there if he is armed with the lance.

On the whole, this subject has never received the attention in our service that it deserves. It is a tendency with our Army; the cavalry has always slighted the saber in the same way. Bayonet fighting in the Army could be very much improved if this subject were taken up seriously in each regiment; but frequently there is no officer who has sufficient knowledge of the subject to be a competent instructor. It is not sufficient to know the movements laid down in the Manual. An instructor must be a fencer himself before he can teach others. There are hundreds of men in the infantry who know every movement laid down in the Manual and can take each position correctly, and yet they cannot deliver an attack properly or defend themselves by the parries that they can

execute. If anyone doubts this, let him take the best men he has in his company in bayonet drill (as learned on the drill-ground), put plastrons and masks on them, and let them engage in combat. Watch the hammer-and-tongs way in which they go at it and watch the hits that are made. Practically, every thrust and lunge goes home. Also watch the manner in which they wrestle with their rifles—swaying back and forth, trying to do they know not what; bayonet points clear up over their heads instead of on a line with their chests, etc. It undoubtedly looks very fine to a person who is not a fencer, but any man who can use a foil or broadsword can see at a glance how gross it all is. If you can use a broadsword yourself, put on the plastron and mask with your best drill-ground-trained bayonet-man and see how helpless he is against your attacks. Try him with the foil, if you prefer. But if you can't fence yourself, how are you going to tell whether his work is good or bad, and how are you going to teach him?

A parallel case would be to place boxing-gloves on men who don't know how to box; but it will take a boxer to see how rotten the exhibition is. I have found that men who can box learn bayonet fighting in about half the time it takes to teach the ordinary man. Why? Because they already have the idea; they appreciate attacks and parries; they know the necessity for quickness and good footwork; they know that the parries must be close and the attacks made with force and reach; they know that the body must be pliable and that anything like stiffness must be avoided.

I do not believe that this subject will ever receive the attention that it deserves until a School for Bayonet Fencing is established in connection with the School of Musketry, and that each regiment be required to send two lieutenants there for instruction. Sergeants might be sent also. When they return to their regiments they can organize classes, and in that manner the whole Army would receive proper instruction. The course should include boxing, fencing with foil and broadsword, fencing with bayonet, foil against bayonet, bayonet against saber, and, if possible, bayonet against lance.

I see no reason why the cavalry School in Fencing (and they need one quite as badly as we of the infantry do) should not be

located in the same place. Cavalry should know how to attack a man armed with the bayonet.

The course should be for ninety days, four hours a day, six days per week.

Qualifications should be established in bayonet fencing.

Two grades: 1st, proficient; 2d, expert.

A cloth badge should be given and worn on the left sleeve of the uniform.

A board of officers in each regiment should conduct examinations and award badges. When you do this, the men will take an interest in the work and will drill overtime to gain that badge.

Qualifications to last for one year.

An officer, once qualified, should retain his qualification perpetually and should wear the badge. Officers should not compete with enlisted men.

Graduates of the School of Fencing should wear some distinctive badge.

This school could be organized by order and should not cost much. The only item would be equipment and transportation.

One word more in regard to badges. One can not safely ignore the very human quality of vanity, especially in the Army. Call it *esprit de corps* if you will, but to obtain the best results it must be fostered. If any man works hard and has achieved proficiency in any subject, he likes his comrades and the world in general to know about it.

The following system was adhered to in training the sergeants of the 21st Infantry as instructors. It is not claimed by the writer that it is the best or the only scheme, but it was the result of much thought and study on his part, covering a number of years, and it is with the hope that it may add something to the efficiency of the infantry that these notes are printed. They may be found useful to any officer detailed or interested in this very important subject.

The course consisted of twenty lessons, one hour per day, five days a week. As a matter of fact, more time than this was devoted to the subject. We all became very much interested in the work, and many times the instruction ran over the time allotted, due to questions, explanations, etc.

The sergeants practiced some of the movements themselves in barracks.

The following principles were impressed upon the men at every opportunity:

Rely on your point. Don't cut unless you cannot use your point. Remember that before commencing an attack with the point your bayonet must be directed at the point to be attacked before the thrust or lunge commences; otherwise your attack will be wild, and you will get into the habit of making attacks with the hope that perhaps they may go home.

Be careful to always take the correct position of **guard.** Have the weight of the body equally distributed upon both legs. (A common fault is to throw too much weight on the left leg.)

Never give your opponent any indication of your intention to deliver an attack. (This is often done by partially closing the eyes, setting the muscles, drawing back the rifle preparatory to thrusting or lunging, looking at the point to be attacked, etc.)

No movement whatever should be slighted in any circumstance. Make your parry complete before you attempt a return, and then make your return with force and life. Don't make a return unless there is a good opening and a fair chance of your attack going home. Don't get into the habit of always making the same return from a parry.

From the start, attack, attack, attack. Throw your opponent on the defensive. That is your best defense. If you keep him engaged parrying your attacks, he will have precious little time to devote to planning attacks on you.

Remember that whatever you do with the bayonet must be done soon; you will soon be tired, and then it will be too late.

Keep cool. Never get excited or lose your head.

Never engage in a wrestling-match with your opponent. If he tries to force your rifle to one side so that you will be uncovered, do not meet force with force; simply disengage.

Never make your parries wild; make them as close as possible.

Never make a blind attack with the hope that it may go home; wait for a good opening, and then let him have it with force and life.

Don't try to parry with your left hand; make your parries with the rifle.

Practice the lunge continually and make it as long as possible. Remember, every inch counts.

Never neglect to straighten the right knee in thrusting or lunging; if this knee is bent, it will shorten your lunge from 4 to 6 inches; that will make the difference between a hit and a miss.

In thrusting and lunging the right foot must be flat on the ground; this is very important and is frequently neglected. (I cannot see why this was omitted from the Manual.)

Keep your bayonet low. It is better to have it too low than too high. I believe that if the bayonet point is held at the height of the chin, it is too high. The height of the second button on the blouse or chest is better. A good swordsman or a man using the lock guard will get under your guard if your point is too high.

Circle around your opponent and get the light in his eyes, then attack. Do not let him do this to you, or force you onto bad ground.

If you are a small man, do not be afraid of a big man; he may be stronger than you are, but you make up for that by being more active. Stay at a distance from him (bayonets must always cross, however), and don't allow him to get in a position where his superior strength will count. If you are a large man, do not despise a small man; he may be as quick as a cat. Try to close with him, and get in a position where your superior strength will tell.

Use your head always.

The class was formed in two lines facing each other, about 5 yards apart.

One instructor cannot well supervise more than sixteen men.

Men should remain in the position given until ordered to return to the guard.

Men should execute each movement very slowly at first until they thoroughly understand how the attack or parry should be made. The instructor should carefully note the manner in which any movement is executed. Many men are in the correct position after the completion of a movement, but their manner of getting there is faulty. (Especially true of parries.)

Bayonets were crossed after ten hours' instruction (plastrons and masks not used). One line was then ordered to deliver an

attack (the other line remaining at the guard). Care was taken that the bayonet (fencing) point touched the point attacked. These attacks were made slowly and carefully. Later, one line was ordered to attack and the other line was ordered to parry. These movements taught the attacks and parries for same. Plastrons and masks were not used at this stage of the instruction. They are not necessary if the movements are executed correctly. Speed was developed later. The object of this instruction was to teach attacks and parries only. Do not hurry through this stage of the instruction. The more time devoted to this instruction the better the result later on. Give frequent short rests. Make your instruction sharp while it lasts, but avoid tiring the men. Try to hold their interest.

All the movements embraced in the Manual were taught and the men were directed to study the book also.

The following exceptions were made in the positions laid down in the Manual and some new movements taught.

Guard.

GUARD (*Correct*).

The rifle should be turned to the left until the bayonet is flat. The position laid down in the Manual leaves the fingers of the left hand exposed. By turning the rifle to the left they are protected by the gun-sling and upper sling swivel. From the **engage right,** if a glancing blow is struck, the swivel and gun-sling will catch the rifle. In the position laid down in the Manual (with the piece only slightly turned to the left) the fingers will be struck.

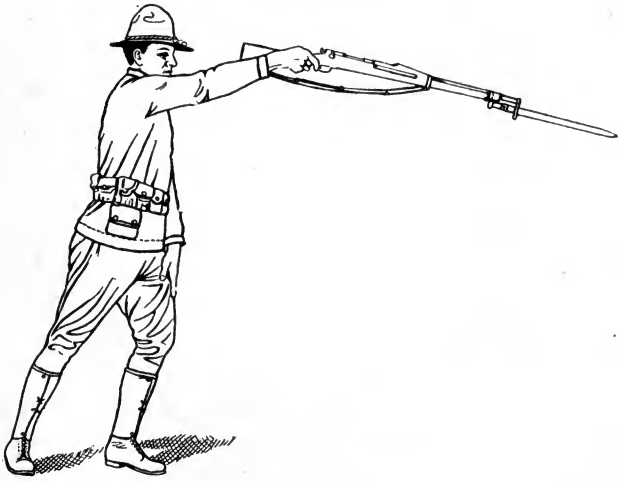
GUARD (*Incorrect*).

Some difficulty was experienced at first in getting the men to take the correct position of **guard.** Most of them would get their rifles too far to the rear—that is, the right hand would be near the right hip, instead of to the front and on a line with the left hip, or in front of the belt buckle, as it should be. In order to correct this defect, and to explain to the men the necessity of always assuming the correct position of **guard,** two men were ordered to engage. Men were taught that in the **engage** bayonets should cross about 8 inches from the point. No. 1 was then directed to move his rifle

to the rear until his right hand was opposite to his **right** hip. No. 2 was ordered to advance slightly, maintaining the correct position of **guard,** and being careful to see that bayonets crossed about 8 inches from their points. It was then pointed out that if both men were to lunge at the same time, No. 2's bayonet would strike first, because, paradoxical as it may seem, No. 2 is closer to No. 1 than No. 1 is to No. 2. It will be found that there will be a difference of from 8 to 16 inches in the distance that each man's bayonet is from his opponent's chest.

After this demonstration, little difficulty was experienced in getting men to assume the correct position of **guard** with the rifle well forward.

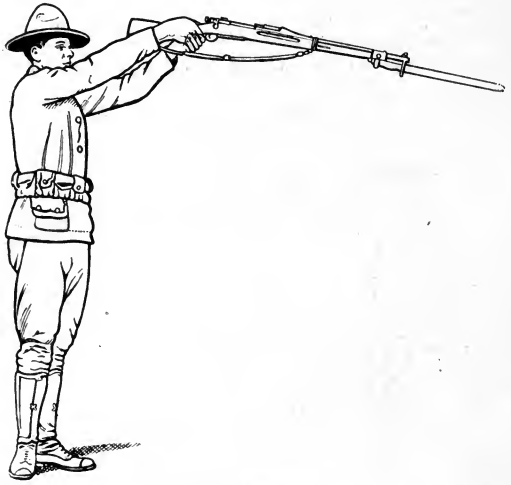
Throw Point.



Being at **guard: 1. Throw, 2. Point.** Throw the piece straight to the front, with the right arm fully extended, retaining the grasp of the piece with the right hand at the small of the stock, at the same time raising the right arm until the hand is in front of the shoulder, barrel up, edge of bayonet down, point directed at the point to be attacked; at the same time drop left hand to left thigh with a slap.

Recover at once and resume the **guard.** Do not try to hold the rifle up with the right arm or hand. If properly executed, the motion imparted to the rifle by throwing it forward and raising the butt will sustain it. Recovery must be sharp.

This is a very nasty attack, if well executed, and very hard to parry. It is not difficult to teach, if men do not try to hold the rifle up with the right arm. It must be executed smartly to be effective.

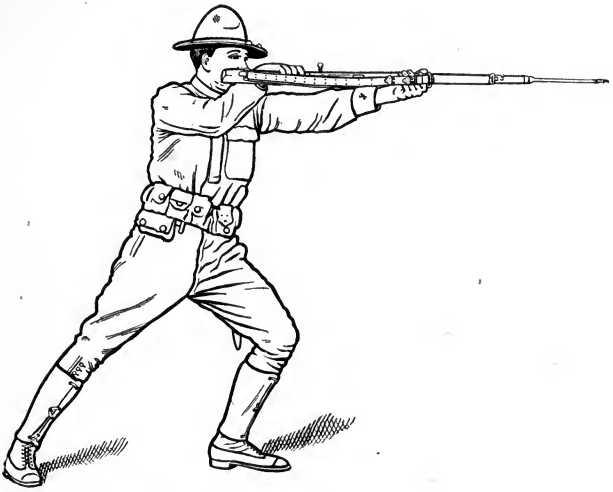


STOP THRUST.

Being at **guard:** 1. **Stop,** 2. **Thrust,** 3. **Guard.** Throw the rifle to the front to the full extent of both arms, barrel up, allowing the left hand to slide along the stock, right hand grasping the rifle at the small of the stock, both hands and butt in front of and at the height of the chin, point of bayonet directed at opponent's face or chest; at the same time draw back left foot until heels touch, left toe pointing straight to the front. Resume the **guard.**

Useful when opponent thrusts, lunges, or cuts, and is very effective if made smartly and with life.

Being at **guard,** to attack low lines: 1. **Drop point,** 2. **Lunge,** 3. **Guard.** Lower rifle with left hand until horizontal; do not move right hand; lunge at the point to be attacked. Resume the **guard.**



LUNGE.

Being at **low parry right or left, to return:** 1. **Up,** 2. **Lunge,** 3. **Guard.** Raise the point with left hand until rifle is horizontal, barrel to the left, right hand at about the height of the neck; lunge at the point to be attacked. Resume the **guard.**

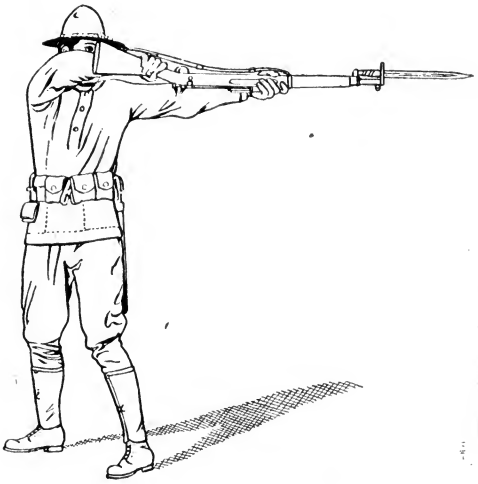
Being at **parry high,** to return: 1. **Parry high,** 2. **Return,** 3. **Lunge,** 4. **Guard.** Turn rifle to the front with the left hand, rifle horizontal (or pointing upward if attacking cavalry), barrel down, right hand at the height of the neck; lunge at the part to be attacked. Resume the **guard.**

A common error in executing this movement is to turn the rifle while lunging. If this is done, the man may be in the correct position when the movement is completed, but the lunge will not have been

properly executed and will not go home; furthermore, there will be no force back of it. The rifle must be turned first, and then the lunge made.

LEFT POINT (1).

Being at **guard: 1. Left point, 2. Two, 3. Guard.** At the first command raise the piece with both hands so that the right arm is fully extended to the right on a line with and at the height of the shoulders, barrel down, bayonet point pointing to the left, barrel resting on the left arm just above elbow, front sight to the left of



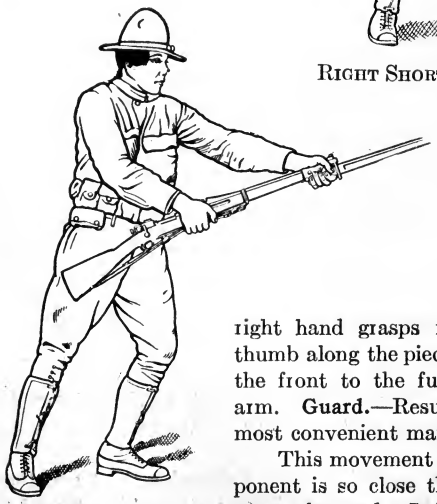
LEFT POINT (2).

left arm (not inside). **Two.**—Thrust to the left at the point to be attacked to the full extent of the left arm. **Guard.**—Resume the **guard.**

This movement is much better than changing front and then thrusting and gives as long a reach. The head should be turned to the left in this movement.

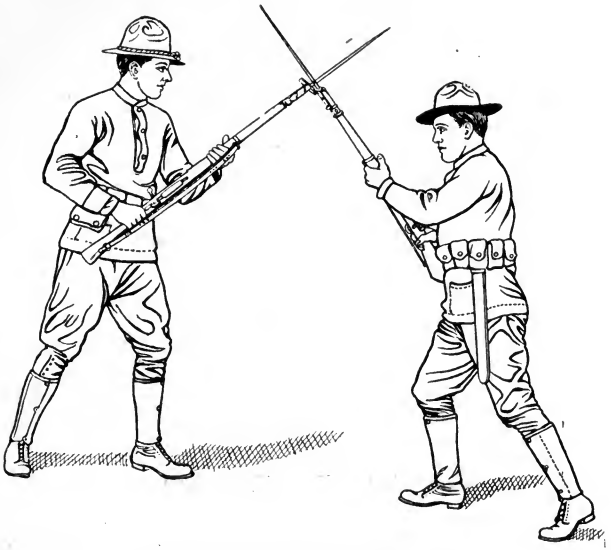
Being at guard: 1. **Right short thrust,** 2. **Two,** 3. **Guard.** At the first command throw the rifle to the rear with both hands, barrel up; regrasp it with both hands, the left hand at the bayonet grip, thumb over the barrel, edge of bayonet down, left hand directly in front of the right hip and touching the body; right hand grasps rifle at the balance, thumb along the piece. **Two.**—Thrust to the front to the full extent of the left arm. **Guard.**—Resume the guard in the most convenient manner.

RIGHT SHORT THRUST (1).



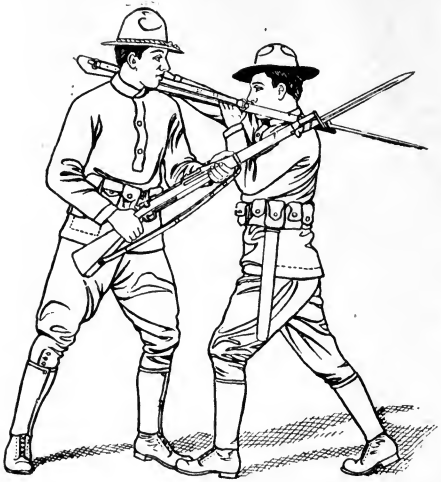
RIGHT SHORT THRUST (2).

This movement is used when the opponent is so close that ordinary attacks cannot be used. It is useful in the breakaway or in mob-work.



LOCK GUARD BUTT STRIKE (1).

Being at the **engage right** and your opponent having his bayonet point too high: 1. **Lock guard,** 2. **Butt strike,** 3. **Guard.** At the first command step forward with the right foot and plant it so that the right heel will be about 30 inches in front of and about 6 inches to the right of the left heel; turn on ball of left foot until left toe is pointing to the left; at the same time carry the piece to the front so that the left hand will be about 14 inches in front of the chest and at the height of the second button on the blouse, right arm close to the body, right hand about in front of the right elbow, barrel to the left so that opponent's bayonet is securely locked, bayonet guards



LOCK GUARD BUTT STRIKE (2).

touching. At the second command step forward with the left foot and plant it about 30 inches in front of and 6 inches to the left of the right toe, which should now be pointing straight to the front; at the same time execute **butt strike** at opponent's neck, raising on the right toe when blow is delivered. Resume the **guard.**

This is a very nasty attack and there is only one guard for it, and that is **rear pass.** If executed with life, it is very difficult to get away from the blow. It should never be allowed in fencing combat; it is entirely too dangerous. It should be taught and drilled often, but only at command. It is impossible to execute this movement from **engage left,** neither can it be done if bayonet points are held low.

Impress upon the men at every opportunity to rely on the point. The edge is good to have and gives you an advantage over a man who has only a thrusting weapon, but the point is the more dangerous of the two.

Men are taught to always lunge (foot movement) when delivering a cut. Finish the cut with a sharp motion like cracking a whip, and then draw bayonet to the rear while holding it against opponent's part attacked. The last motion of the cut and draw must be executed simultaneously to be effective.

EXAMPLE.—Take a sharp saber and deliver a straight cut, without drawing, against a rug or blanket rolled and suspended from a tree. You will find that you can make no impression upon it. Now deliver a light cut, ending with a sharp crack, and draw at the same time. You will find that you can cut the rug in two with little force or effort. Cuts, to be effective, must be delivered in this manner, and bayonets should be sharpened before taking the field. Dull bayonets are very likely to stick in a wound; sharp ones will cut their way out.

In Samar, P. I., in 1900, men of the 9th Infantry frequently had to place their foot on an enemy after killing him with a bayonet before they could withdraw it. This will not happen with a sharp bayonet. **I know.** While operating in Samar in 1905–6–7, I required my men, both regulars and scouts, to sharpen their bayonets, and we had no difficulty on that score.

Being at **guard, at engage right: 1. At left arm, 2. Cut, 3. Guard.** Raise point over that of your opponent, turning rifle at the same time so that the edge of the bayonet will be down; lunge (foot movement), and cut down at opponent's left arm or hand. Resume the **guard.**

Being at **guard, at engage left** or **right: 1. At left hand, 2. Cut, 3. Guard.** Drop point of bayonet until point is about 8 inches below opponent's left hand, turning rifle so that the edge will be down; lunge (foot movement), and cut with false edge at left hand. The guard for this is **low parry right, rear pass, lunge, throw point,** or **stop thrust.**

All the engagements laid down in the Manual were taught, and the **cut over** in addition.

Being at **guard,** at **engage right** or **Left: 1. Cut, 2. Over.** Raise your point until it clears that of your opponent, then drop your point to the other **engage.** Do not draw rifle to the rear.

Practice the following: **Engage right, engage right and left,**

cut over and engage left, cut over and engage right, engage right and left and cut over, etc., etc.

LOW PARRY RIGHT.

LOW PARRY LEFT.

Being at **guard: 1. Low parry, 2. Right.** Carry the point of the bayonet about 6 inches to the left, then drop the point, describing a quarter-circle to the right until point is about 6 inches to the right of and at least 36 inches in front of right knee. Finish with a snap like cracking a whip. A common error in executing this movement is to drop the point to the front and right. At the completion of the movement the man will be in the correct position, but his opponent will have gotten inside of his parry. The point must first be moved to the left and then lowered and brought to the right to catch the other rifle and parry the attack. Another common error is to have the point too far to the right; 6 inches is really more than enough.

Being at **guard: 1. Low parry, 2. Left.** Carry point of bayonet 6 inches to the right, then drop point and describe a quarter-circle to the left until point is 12 inches to the left of and at least 36

inches in front of left knee. Finish with a snap like cracking a whip. The 12 inches to the left of the left knee is necessary to protect the left thigh.

A common error is to raise the point and describe a circle outward and to the left. The man may be in the correct position at the completion of the movement, but his opponent will have gotten inside of his parry. Point must first be moved to the right (to correct this tendency), then lowered and moved to the left to catch opponent's rifle and parry attack.

HIGH PARRY RIGHT.

HIGH PARRY LEFT.

Being at **guard,** a cavalryman passing you on your right flank and delivering a right low cut: 1. **High parry,** 2. **Right.** At the second command raise the piece with the left hand until vertical; at the same time carry it to the right so that the right hand will be opposite to and about 12 inches from the right hip, left hand grasping the piece at the balance, piece about 14 inches in front of second

button on the blouse, barrel towards the body, piece vertical. (Body must turn slightly to the right on hips.) This parry covers the whole right side from the hips above the head.

Being at **guard**, a cavalryman passing you on your left flank and delivering a left low cut: 1. **High parry, 2. Left.** At the second command raise the piece with the left hand until vertical; at the same time carry it to the left, right arm close to body, right forearm horizontal, right hand in front of left hip, barrel to the rear, left elbow between rifle and body, piece supported by fingers of left hand, thumb pointing to the front, head and eyes turned to the left, body facing squarely to the front. This parry covers the whole left side, from the hips to above the head.

Each drill should always commence and end with at least five minutes (by the watch) being devoted to **thrust, lunge,** and **throw point.** Five minutes of each drill should always be devoted to thrusting at rope knots (suspended) about 5 inches in diameter.

Do not allow the men to get too close. Make them make an effort to reach the knots; otherwise this exercise has little value.

The **volts** should be taught and frequently practiced. I believe that it is best, in making the **volts,** to turn on the ball of the left foot. Bring the rifle to **port arms** when volting; you will find that you preserve your balance better.

It may have been noticed that in the above course no time was devoted to foot movements. Men should know these and the Manual before taking up this course.

It must be understood that the above course can only be given after men have had some instruction in bayonet exercise; otherwise it will take at least forty lessons to make a man proficient, and this instruction would have to be given consecutively.

My schedule was arranged as follows:

First five lessons, attacks;
Second five lessons, parries;
Third five lessons, attacks and parries in combination;
Fourth five lessons, combat.

Plastrons and masks were not used in the first fifteen lessons.

All movements were executed at command, and when both lines engaged, movements were made carefully, so there was no danger. Plastrons and masks were always used in combat.

When men have been through the above course, they will be able to work out innumerable combinations and will have a good practical working knowledge of bayonet fighting.

Remarks on Fencing Equipment.

The mask is good and strong and leaves little to be desired. It would be better if the mesh were a little coarser and the wires a little larger, so that men could see better.

The plastron is not entirely satisfactory. The sleeves should come to the wrists and the chest be padded a little more.

The gloves are not satisfactory. We have a striking weapon (cutting bayonet), yet there is no padding over the wrists. I found it necessary to have my men pad their wrists to save them from many nasty blows. The leather used in the gloves tears too easily and is not thick enough. The padding in the gloves is not thick enough. Many men frequently get nasty cuts and blows due to this defect.

The fencing bayonets are a joke. They bear absolutely no resemblance to our bayonet, break at the slightest provocation, and are fastened to the rifle by two bands cut seven-eighths through by screw-holes, and break at the first blow in consequence. I devised a reinforcement for holding the bayonet to the rifle, which cost very little and was made by the post blacksmith from a model furnished by me. It can be readily made from the drawing shown. I believe that the bayonet should be made stiffer. Many men are struck fairly, but do not know it. The bayonet should be firm enough to give a blow that would be felt without injuring a man.

The rifle is satisfactory and leaves little to be desired. Spare parts and extra gun stocks should be issued with each rifle, so that repairs could be made in the company. I have never been able to get extra gun stocks or spare parts for my fencing rifles; consequently it has always been necessary to send them to an arsenal for repairs, which wastes a lot of time and is unnecessarily expensive. An infantry officer of experience in this subject should be ordered to an arsenal and permitted to experiment with the fencing equipment until a satisfactory one was developed. It should not cost much, nor would it be difficult or take much time; thirty days would be ample.

CHAPTER VI.

PROPERTY.

The most difficult problem that governors of States, adjutant generals, and National Guard officers generally have to solve is the care and preservation of Federal and State property. This is due to many causes, among which may be mentioned a faulty militia system, lack of discipline, and ignorance on the part of officers and men in regard to accountability and responsibility.

The governor of a State is responsible and accountable to the Federal Government for all Federal property issued to the State. However, the governor of a State is not bonded, and the only way that the Federal Government can recover from a State for property lost or damaged is to withhold the amount from the next allotment due such State, or to charge it against a current allotment.

The adjutant general of a State is not bonded for the Federal property which is practically in his care, although he is directly responsible and accountable to his governor. The position of the adjutant general in the State is practically that of the Secretary of War in the Federal Government. He handles the property, but cannot be held responsible for its loss or damage in a pecuniary way. Of course, he is morally responsible to the governor.

The practice in most States is to bond the company commanders and other officers responsible for State and Federal property; but this bond is a State bond, and the officer is responsible to the State only.

The greatest difficulty encountered in caring for Federal and State property is to get officers and men to thoroughly realize that when an article is lost, it must be accounted for and paid for by some one—usually the company commander or other officer responsible and accountable. Another thing that they do not thoroughly appreciate is that when one officer is "long" (or ahead) on property some other officer or man is bound to be "short" (or behind) and this man is the one who is "stuck" for it. If National Guard officers and men would coöperate with each other, as is done

in the regular service, and when they find that they are "long" on some article would help other officers out who are "short," it would simplify matters greatly; but the majority will not do this, as they have the ever-present fear that they too may be "short" at some time.

The system of issuing property to enlisted men is usually faulty in that no receipts are taken at the time of issue, frequently no record is kept of the issue, and often men are allowed to take the property home. This system is pernicious, and will invariably result in loss.

Later on I will outline a system which, if followed, will enable responsible officers to keep track of property issued, and which should prevent loss to a great extent.

Accountability and Responsibility.

Much misunderstanding exists in the minds of National Guard officers in regard to responsibility and accountability. An officer is automatically responsible for any property, Federal or State, which comes into his possession in any manner whatsoever. An officer is accountable for any property which has been invoiced to him and for which he has signed receipts and for which he makes a return. An officer can be responsible for property without being accountable for the same. An officer can be accountable for property without being responsible for it. For example, when he carries property on his returns for which he has signed receipts and which he has issued on a memorandum receipt. The officer who signs the receipt becomes responsible for the property, while the first officer is still accountable for it, as he still carries it on his papers. He becomes responsible for it only if the memorandum receipt is lost or destroyed or in case he has allowed it to leave his hands without taking a receipt. If he issued property on a memorandum receipt without authority for so doing, he retains his responsibility. However, the other officer is also responsible for the property by the mere fact of it having come into his possession. It does not matter how he gets possession of Federal or State property; if it is in his possession, he becomes automatically responsible for its care and preservation.

It will be seen from the above that an officer can be responsible

for property without being accountable for it; he can be accountable for property without being responsibe for it; and lastly, he can be both responsible and accountable for property in his possession. He will also retain his responsibility and accountability for it if it is lost or destroyed until he has been cleared by a board of survey. If he is cleared by the surveying officer from all responsibility for its loss or damaged condition and the proceedings are approved by the Secretary of War, then the approved proceedings are a voucher by which the officer can drop the property from his return; or, if he is responsible for it only, then the approved proceedings will clear him from responsibility. The approval of the governor will allow him to drop State property.

Property Responsibility.

Any officer or enlisted man who has Federal or State property in his possession is responsible for it, its care and preservation, so long as the property is in his hands. There are no exceptions to this rule whatsoever. He has no right to sell, give, or otherwise dispose of this property; if he does, he is guilty of a Federal offense, for which he can be severely punished by a United States court; and there are usually State laws which cover State property.

It is the duty of any officer or man who acquires Federal or State property, except by regular issue or purchase (when expressly allowed by law), to immediately report the fact to his superior officer and turn the property over to him, so that it can be taken up on returns and properly accounted for.

It is the duty of any officer who receives property under the above conditions to immediately take the same up on his returns with appropriate remarks, such as "Found at station," "Turned in," etc. An officer who fails to do this is guilty of a serious offense, for which he can and should be punished.

Property Accountability.

An officer who is accountable for property should make regular, correct, and prompt returns for the same. This is woefully neglected in the National Guard, and the avoidable loss of much property results. Thousands of dollars' worth of property is annually lost through this cause alone. In reality the property is

not actually lost, but all record of its whereabouts is lost, which amounts to the same thing. I have known of cases where an active campaign of property-hunting brought to light two or three thousand dollars' worth of property in a single State.

Few company commanders in the National Guard really know just how much property they are accountable for. They usually depend upon the quartermaster sergeant, and he is either careless and loses track of the property or he goes to the other extreme and attaches himself to any article that happens to come within reach, thereby making some other quartermaster sergeant and accountable officer "short." This is usually treated as a joke, when in reality it is a serious offense, which should be rigidly suppressed.

Frequently accountable officers are ignorant of the method to pursue to clear themselves from responsibility for property lost, damaged, or worn out through fair wear and tear in the service. This is another cause of shortage. Property becomes unserviceable through fair wear and tear, and this fact is not reported to the accountable officer by the quartermaster sergeant. The property lies around the store-room, becoming more worthless and unsightly from day to day, and finally the quartermaster sergeant, or the artificer, or the armorer, or someone else, concludes that it is an eye-sore, of no value any way, and he, whoever he may happen to be, puts it in the ash-can. When a check is made, the accountable officer is "short," and no one remembers what became of the article, or if he does he holds his peace, because he finds that he has done wrong and does not want to be "called down." If a survey had been asked for as soon as the article became unserviceable, and it was examined and acted upon at once, this would not happen, and the officer would not be "short."

It may be taken as a rule that more property is misplaced in the National Guard than is actually stolen or lost.

When property is lost or stolen, the responsible officer should immediately request a survey to investigate, report upon, and fix the responsibility for the loss. If an officer neglects to do this at once, he may be pretty sure that he will be "short" in his property and will have great difficulty in clearing himself later, as it is then difficult to get affidavits, and the people concerned forget the cir-

cumstances or have left the State or locality and cannot be reached. Under these circumstances it is very difficult for the surveying officer to ascertain the facts and arrive at a definite conclusion. He usually has but one course open, and that is to find the accountable officer responsible, when, as a matter of fact, the property may have been lost through circumstances over which the accountable officer had no control; but his failure to take prompt steps to clear himself results in his having to pay for the property. Under these circumstances he has no one to blame but himself.

Causes Which Produce Avoidable Loss.

Carelessness in making out property returns.

Carelessness in checking property.

Carelessness in issuing property.

Carelessness in marking property.

Lack of system in caring for property in store-rooms.

Permitting unauthorized persons to have access to store-rooms.

Permitting unauthorized persons to have Government property in their possession.

Allowing officers and enlisted men to take property to their homes, instead of keeping it in the armory at all times (when not actually in use), as required by law.

Failure to check property periodically.

Failure to apply for surveys promptly when property is lost, damaged, or worn out.

Failure to carefully check property when issued prior to going to camp.

Lack of discipline and failure to hold squad-leaders responsible for property while in camp.

Failure to carefully check property after the return from camp.

Lack of system in packing and storing property in going to and coming from camp.

Ignorance on the part of officers and men in caring for property generally.

And last, but not least, **lack of discipline.**

Causes Which Produce Unavoidable Loss.

Theft.

Desertion.

Fire.

Burglary.

Insecure store-rooms. (Fault of someone, but not always responsible officer.)

Lack of storage facilities. (Fault of someone, but not always responsible officer.)

Loss of property in field service. (Not summer camps.)

Method of Applying for Board of Survey.

Read carefully Paragraphs 105 to 127, "Regulations of the War Department for the Organized Militia," 1910.

Read carefully Paragraphs 710 to 726, "U. S. Army Regulations," 1913.

National Guard officers are not permitted to submit certificates in place of affidavits, as is done in the Regular Service.

Officers and enlisted men of the Organized Militia must submit affidavits containing what they know about the loss, damage, or destruction of Federal property.

Some States have special regulations in regard to State property.

Write a letter to the adjutant general of the State, requesting that a surveying officer be appointed, in the following form:

Organization,
Place,
Date.

From: Officer making application.
To: The Adjutant General, State of ----------.

Subject: Request that surveying officer be appointed to act on (state class of property). Request that a surveying officer be appointed to examine into, report upon, and fix the responsibility for (here state loss, destruction, or damaged condition of) the following (here state class of property, ordnance, quartermaster, medical) articles, the property of the United States or of the State of ---------, which was issued to (here state individual or organization), and for which I am responsible and accountable or (responsible) or (accountable) (as the case may be), and which has (here state briefly the circumstances of the case) lost, destroyed, or has become unserviceable through fair wear and tear in the State Service.

Fill out D. M. A. Form No. 16c and forward it with letter. (For Federal property only.)

Signature.

Before making this application, carefully investigate the circumstances yourself and secure all the evidence that you can in the form of affidavits, so that when the surveying officer arrives you will have a complete case to present to him. Don't put this off until he arrives, because men may tell you one thing and tell the surveying officer an entirely different story.

You should have a supply of Division of Militia Affairs Form 16c on hand. If you have not got them, write to the adjutant general of the State for them before you request the survey.

When the surveying officer has completed his report and it has been approved or disapproved by the Secretary of War (in case of Federal property) or by the governor (in the case of State property), you will be notified by the adjutant general and will then know whether you have been cleared or not, and what disposition to make of the property, assuming that it has not been lost. Until you receive this notification you are still responsible or accountable, or both, and the property must be carried on your returns (if you make any).

Remember, a separate survey report must be made in the case of each class of property. For example, don't place ordnance and quartermaster property on the same survey report. If you have ordnance, quartermaster, and medical supplies to be acted upon, it will require three separate survey reports. Some States permit different classes of property to be placed on the same report, but this applies to property owned by the State only. It can never be done with United States property under any circumstances. This rule holds good in making out requisitions for United States property, if you ever enter the Federal Service. A separate requisition is required for each class of property. Much of the confusion and delay in getting property during the Spanish War was due to the fact that National Guard and Volunteer officers did not know this. I know of one case which occurred during this war in which an officer made out a requisition for a horse, saddle, blankets, clothing, and commissary supplies all on one requisition, and then damned the Government because he did not get them.

PROPERTY in possession of..... Organized Militia of..... submitted for the action of a surveying officer by....., responsible officer.

	1. Articles.	2. Quantity.	3. When Received by Organization.	4. Condition of Property when Received.	5. Existing Condition of Property.	6. Manner in which Articles were Lost, Destroyed, Damaged, or have become Unserviceable or Unsuitable for Service, and Particulars in which Unserviceable or Unsuitable.
1						
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23						
24						
25						
Total,						

---------- } ss.

I do solemnly swear that the articles of public property enumerated above, for which I am responsible, were lost, destroyed, damaged, or have become unserviceable or unsuitable for service in the manner stated opposite each item, and that this property has not previously been surveyed.

Subscribed and sworn to before me this____day of____191__

---------- (Name.)

---------- (Rank and Organization.)

D. M. A. Form No. 16c.

INSTRUCTIONS.

1. Officers responsible for property to be surveyed will list same on Form No. 16c, Division of Militia Affairs, and complete the affidavit at the bottom of said form. To this affidavit should be attached the affidavits of all persons having knowledge of material facts bearing on the loss of, damage to, or condition of the property, and all evidence on which the responsible officer relies for relief from accountability. When all evidence is complete, it will be forwarded to the quartermaster general of the State (or the adjutant general, depending upon State regulations).

2. Property to be surveyed will be considered under three headings, viz.: "Unserviceable through Fair Wear and Tear in Service," "Lost, Destroyed, or Damaged on Account of Fire," and "Lost, Destroyed, or Damaged through Other Causes." Affidavits should cover but one class of property.

3. When received at the State arsenal, affidavits of responsible officers will be attached to Form No. 16, Division of Militia Affairs, and the total quantities of the several articles listed thereon, together with the total value of the property as shown by current price lists.

4. Each report of survey should cover but one of the classes of property detailed in Paragraph 2.

5. When completed, all papers will be forwarded to the adjutant general, who will appoint an officer to survey the property.

Following is a system to be followed to prevent property from being lost or misplaced, and the method to be used in caring for unserviceable property until same is properly disposed of. The care of property is pretty well covered by a previous chapter in this book, but for convenience and reference the proper system to be followed will be outlined again in this chapter:

1. Every article of Government property should be properly marked, as required by orders and regulations. Read Paragraphs 281, 290, 292, 293, 294, and especially 295, "United States Army Regulations," 1910. It is not necessary to mark rifles, as each rifle has a number. Gun-slings and all other leather equipments can and should be marked. Regulations do not require clothing to be marked in the Regular Service, but it is usually marked on the inside with the letter of the company and number of the regiment and the man's company individual number. In the National Guard I consider it absolutely necessary to mark clothing. If this is not done, it is practically impossible to fix responsibility for the loss of clothing or keep track of it. For instance, Brown loses his blouse; it is not marked; he picks up Smith's, of his own or another company, and Smith is "shy" a blouse and so is his company commander, and there is no way of fixing the responsibility. If clothing is properly marked, this cannot be done, because an inspection will reveal the real culprit. This fact will make enlisted men decidedly more careful in the care of property. It is the same way with canteens and haversacks and other ordnance property. If they are properly marked, they will not get lost, or be stolen; but if they are not, they will almost certainly be lost or at least mislaid, which will amount to the same thing, as far as the accountable officer is concerned. **The only safe rule to follow is to mark everything that is movable.**

2. Keep an accurate record in the company of every article that you are accountable or responsible for. Keep this record yourself and require the quartermaster sergeant or armorer to keep a duplicate of it.

3. See that your store-room is secure and that no unauthorized persons have access to it. The practice of taking enlisted men into the store-room to be fitted to clothing or to have arms and equipments issued to them is wrong. There should be a half-door, and

articles should be passed out to the men when necessary. They should never be permitted to enter the store-room, even when the quartermaster sergeant is present. He may turn his back. Trust everybody, but don't take any chances.

4. Have articles systematically arranged in the store-room. It does not matter what system you use, provided you have some system. Have all ordnance in one part of the room and each article in a place by itself. For instance, don't mix knives, forks, spoons, and oiler and thong-cases. Have all clothing arranged in another part of the room and keep the different articles separated—blouses in one place, breeches in another, hats in another, etc.

5. Have boxes with locks arranged in which to store unserviceable property—one for ordnance, another for quartermaster property, etc. Just as soon as an article becomes unserviceable, place it in its proper box and lock the box. It should remain there until it has been properly acted upon by a surveying officer and properly disposed of. If you use this system, it won't be placed in the ash-can.

6. Have a special gun-rack for disabled rifles and place a rifle in this rack as soon as it needs repairs. Tag it so that you can see at a glance just what is the matter with it and what it needs.

7. Have a special box with compartments in which to keep spare parts for rifles and other equipment. The practice usually followed is to have one box and dump everything into it. The result of this practice is that you never can find what you want, and more than half the time you don't know exactly what you have or what you need. I know of one company that had a third of its rifles out of commission and had plenty of spare parts to repair them, but these parts were in a box with old buttons and other perfectly useless junk, and no one in the company knew that they were in the store-room at all. You may think that this was an exceptional case, but my experience has been that it is not the exception, but the normal case in the National Guard.

8. Keep a book in which is entered every article of clothing and equipment issued. Make the man sign a receipt in this book when he gets the property. This is a better system than slips, because they get lost and misplaced; a book does not. Never under

any circumstances let anything get out of the store-room without taking a receipt for it. Now this may seem like a lot of work, but, as a matter of fact, it is much easier than periodically having to hunt for lost and strayed property and will not, in the long run, take a quarter of the time.

9. Never let your men take and keep property in their home. It is contrary to law in the first place, and you will almost surely have to pay for the property if you do.

10. See that each man has a locker with a lock on it, in which he can place property issued to him. If you have his receipt and he loses the property, you can usually collect for it by means of the delinquency court. This, of course, is covered by State law, but most States have some way of recovering.

11. Make periodical inspections, say every three months, and check up your property.

12. I have found that it is much better and much simpler to have the blanket-rolls made up at all times. If you have to turn out in a hurry, you are prepared. These rolls should be made up under the supervision of an officer, and you will find that blankets, pins, poles, ropes, etc., will not nearly so readily get lost or misplaced.

13. Keep your haversacks complete the same way, with knife, fork, spoon, tin cup, bacon bag, and salt, coffee, and sugar sack. Inspect them frequently, and these small articles will not get lost. There should be a peg under the blanket-roll, upon which should be hung the packed haversack and the canteen. If you habitually use garrison belts for drill, the field belt and suspenders can be hung on this peg, and your entire field equipment will be together.

14. Never remove the suspenders from the field belt; they belong to it and it is required by Regulations, and this will prevent them from getting lost or mislaid, as they most surely will if you allow them to be removed.

15. Intrenching tools, identification tags, and first-aid pouches and packets should never be issued until you are ordered to go out on service. These articles will surely be lost if you issue them before. Some experienced National Guard officers advocate the keeping of front-sight covers in the store-room also.

16. Oiler and thong-cases, brushes, and thongs should always be kept in the rifles and frequent inspections made to see that they are there.

17. Never take articles of equipment apart to clean them until you are ready to do so; then reassemble them at once.

18. Follow the above rules, and you should have no difficulty in taking care of your property; neglect them, and you will surely be "short."

WAR DEPARTMENT,
OFFICE OF THE CHIEF OF STAFF,
CIRCULAR No. 7. DIVISION OF MILITIA AFFAIRS,
WASHINGTON, April 30, 1915.

1. Information having been requested as to whether or not a stoppage can legally be made against an officer or enlisted man of the Organized Militia for loss or damage to United States property issued for the use of the Organized Militia of a State, and if so, whether or not such stoppage can be made against any pay that may be due or become due from allotments to a State under the provisions of Section 1661, Revised Statutes, or from the Federal appropriation for "Encampment and Maneuvers, Organized Militia," the following opinion of the Judge-Advocate General of the Army, which has received the approval of the Secretary of War, and the procedure necessary to make the stoppages in question, are published for the information and guidance of the Organized Militia of the United States.

The views of this office are desired on the question whether or not a stoppage can legally be made against an officer or enlisted man of the Organized Militia under the provisions of Section 1766 of the Revised Statutes for loss of United States property, such stoppage being made against any pay that may be due him from Federal allotments to a State under the provisions of Section 1661 of the Revised Statutes, or from Federal appropriations for "Encampment and Maneuvers of the Organized Militia" under the Act of March 4, 1915.

The question arises on a request for information "as to what procedure is necessary to put a stoppage against an officer of the Organized Militia upon the United States pay-roll, 'Encampment and Maneuvers,' who has lost Federal or State property."

Under Section 13 of the Militia Act of January 21, 1903 (32 Stat. 775), as amended, all property issued to the Organized Militia remains "the property of the United States" and must be annually "accounted for by the governor of the State * * * as required

by law"; and the State is therefore responsible, as bailee of the property, to the United States, for damage to or loss of the property, unless relieved of such responsibility in the manner prescribed by the statute. It is therefore the duty of the State authorities, where any officer or soldier to whom such property is issued or in whose custody it is placed is responsible for the loss thereto by theft, damage, etc., to take such steps to have the responsibility for the loss or damage fixed by a surveying officer of the Militia, whose report, when approved by the governor, will determine whether or not the State is to be relieved of responsibility for the property. See Section 4, Act of June 22, 1906 (34 Stat. 449). The property, however, as stated above, remains the property of the United States; and while the Government looks to the State as bailee of the property for the care of the property, and holds the State responsible for any loss or damage thereto, except such loss or damage as results from a cause with respect to which the State is entitled to be relieved; I am clearly of the opinion that the statutes do not preclude an officer or soldier of the Militia who is responsible mediately for the loss or damage of the property from being charged therewith.

Under the provisions of Section 1766 of the Revised Statutes, the pay of any person "who is in arrears to the United States" may be withheld until he has accounted for and paid into the Treasury all sums for which he may be liable; but this section has application where there are transactions of a pecuniary nature between the officer and the Government. Independent of this section, the pay of any person may be withheld to make good a loss for which he is legally responsible, unless there is a statute which would preclude such action. Under the regulations respecting the care of public property any officer who has the custody of Government property is responsible for it, regardless of where the accountability or responsibility might otherwise rest on paper; and the general rule is, that all officers are responsible for any Government property of which they have the custody, and the mere fact that an officer has not receipted for any given article cannot be assigned as a warrant for his failure to exercise the utmost diligence under all circumstances to see that such property is properly safe-guarded. He will, of course, be liable only where a loss has been incurred and where it is due to his failure to exercise that degree of care which the circumstances require. (Dig. Op., J. A. G., 1912, 908F.) I see no reason, therefore, why a regulation may not be adopted with respect to Militia property which shall provide that where an officer or enlisted man of the Organized Militia is found by a surveying officer to be responsible for the loss of any Government property issued to him or placed in his custody, and the report of the surveying officer is approved by the governor of the State, the proper disbursing officer shall, upon

request of the governor, enter the value of the property so lost as a stoppage against any pay that may be due such officer or enlisted man from Federal allotments to the State under the provisions of Section 1661 of the Revised Statutes, or from Federal appropriations for "Encampment and Maneuvers of the Organized Militia" under the Act of March 4, 1915.

2. In conformity with the approved opinion of the Judge-Advocate General given above, if an article of United States property issued to the Organized Militia of a State, Territory, or the District of Columbia be lost or damaged by the negligence or fault of any officer or enlisted man thereof, he should pay the value thereof or the cost of repairs necessary to place the article in serviceable condition. The amount so charged the officer or enlisted man should be entered on the pay-roll against any pay that may be due him or may subsequently become due him, the said amount being entered on the roll opposite the name of the officer or enlisted man so charged, but the amount so charged should not exceed the value of the article or cost of repairs, and only on conclusive proof and never without a survey, the officer or enlisted man being informed at the time of signing the roll that his signature will be regarded as an acknowledgment of the justice of the charge.

3. In case of charges on pay-rolls (War Department Form No. 368) covering payments made by United States disbursing officers appointed under the provisions of Section 14 of the Militia Law, credit will be taken in column 8, "Amount Paid," for the total amount of pay due, and the amount collected on account of such charges will be deposited with the Treasurer of the United States to the credit of the appropriation "Arming and Equipping the Militia." The disbursing officer will notify the Chief, Division of Militia Affairs, of the fact, stating the name of the depository, the amount of deposit, the allotment to which the money pertains, and that the amount represents collections on pay-roll for United States property lost, damaged, or destroyed, and the number of the certificate of deposit (Paragraph 165, Regulations for the Organized Militia, 1910). Upon receipt of notification from the Treasurer that the amount has been deposited, it will be credited against the allotment of the State concerned under Section 1661, Revised Statutes.

4. In case of charges on pay-rolls, War Department Form No. 367, covering payments made from the Federal appropriation "Encampment and Maneuvers, Organized Militia," the entry on the pay-roll will be made as indicated in Paragraph 2 of this circular. The collection will, however, be made by the quartermaster of the Regular Army making the payment, and disposed of as required by Army Regulations.

5. The approved survey report covering the charges for

property lost or destroyed will constitute the proper voucher for dropping the article from the property return affected. The approved survey report covering charges for damages will be retained as a part of the State's records, the date of the approval being in every case entered upon the pay-roll on which the charge is made.

6. Attention is invited to the provisions of Paragraphs 121, 122, and 123, Regulations of the Organized Militia, 1910, governing the procedure to be followed when charges for United States property lost or damaged are collected from payments made to officers and enlisted men from State funds. (D. M. A., 55614.)

By order of the Secretary of War:

H. L. SCOTT,
Brigadier General, Chief of Staff.

Official:
A. L. MILLS,
Brig. Gen., General Staff,
Chief, Division of Militia Affairs.

LECTURE No. 1

OF A SERIES OF TEN DELIVERED TO THE OFFICERS AND SERGEANTS OF THE NATIONAL GUARD OF ARIZONA.

This paper is the first of a series of ten lectures which I delivered to the officers and sergeants of the National Guard of Arizona. This course deals with the following subjects in their logical order:

1. Camps.
2. Security of Camps or Outposts.
3. Marches and Advance Guards.
4. Reconnaissance and Patrolling.
5. Contact and Deployment for Action.
6. The Attack.
7. The Defense.
8. Intrenching and Intrenchments.
9. Defense of Houses and Localities.
10. Training for Battle.

CAMPS.

When the order is received for mobilization, the first thing that you gentlemen will have to do is to place your commands in camp. It is essential that the camp be made sanitary and comfortable. Men must never be made to undergo more hardship than is unavoidable. They must be well housed, well fed, and amused. A contented camp is a healthy one. The moment men become discontented your sick report begins to creep up.

Great care must be exercised in training new men; they must not be worked too hard at first, or you will break down many men who, if handled intelligently, would soon develop into hardy soldiers. The best way to harden men is to go about it gradually—nothing is gained by forcing them. It is like training a colt; if you run him too far or work him too hard, you will ruin him completely and he will never be any good.

Many men upon going to camp have trouble with their feet.

This is due to the fact that they have been wearing civilian shoes, which, in the majority of cases, have been too tight and too short. When they commence to wear the Government shoe their feet commence to expand and resume their normal shape; this throws more strain on the arches, and as a result the men complain that their shoes do not fit and that they cannot wear the Government shoe. No attention whatever should be paid to these complaints, and men must be required to wear the Government shoe, whether they like it or not. The new shoe is, without question, the best military marching shoe in the world. The Shoe Board worked on it for two years, and examined all marching shoes in use in the armies of the leading powers.

Troops upon going into mobilization camps should be given three periods of setting-up exercises, of ten minutes each, three times daily, Sundays included. A very important part of these exercises is the foot exercise, in which men raise on the toes, keeping the heels together, with hands on hips, thumbs to the rear and touching. If this is carried out without fail, it will do more to harden men and get them in shape than any other mode of training. This exercise (foot exercise) will strengthen the arches and muscles of the feet to such an extent that in three weeks your men will have no trouble with their feet, and will be able to make marches that, had this exercise not been given, would lay half of your men by the roadside.

Another thing: Every company should be amply provided with foot powder and adhesive plaster for treating blisters. It may be taken as a rule that at least 90 per cent of all blisters can be treated with adhesive plaster in such a way that the men can continue to march from day to day until the blister has healed. I have repeatedly seen blisters 2 inches long and about 1 inch wide fixed up with adhesive plaster so that a man could make a fifteen-mile march without discomfort. But remember, every blister must be treated at once, and not allowed to go until the man is disabled.

Foot inspection should be held every night in camp and at the completion of every march. If you neglect this precaution, you will lose at least 50 per cent of your men in the first fifty miles that you march.

Men must be required to ditch their tents and gather hay or

grass or branches for a bed. They will not do this unless you require it; old soldiers will, but recruits will not. A hollow should be scraped in the ground for the hips. You must see that this is done; don't tell the men to do it, but see that they do it. A neglect of this simple precaution will spoil a man's sleep and will in consequence render him unfit for the following day's work. No man can march and drill from day to day and stand the other hardships of a campaign unless he gets a good night's rest. New troops break down in campaign because they neglect these simple precautions.

Watch your kitchens like a hawk. They must be as clean as a pin.

Watch your cooks and see that they bathe daily and always have on clean clothes. Do not tolerate any excuse whatever in this respect.

Pits must be dug under your kitchen fires and filled with stones so that all liquid matter can be poured on these stones under the fire and evaporated. Solid matter can be burned on the fire or buried in pits and immediately covered with dry earth like the rears. Whenever food or slop-water is dropped on the ground, it must be immediately covered with earth or ashes to prevent it from attracting flies. You cannot delegate these things to the cooks or to a sergeant. You must see to it yourself until your men are trained. Watch your cooks and kitchen police and see that all pans and cooking utensils are carefully scrubbed and rinsed. Most cooks are careless in this respect and fail to wash all soap from the pans and kettles. As a result, men are given a daily dose of soap with meals, which will soon give the entire company dysentery.

You must have two kettles in which the men can wash their mess-kits: one with boiling soapy water and a hand mop, in which to wash them, and one with boiling clean water and a hand mop, in which to rinse them. A reliable non-commissioned officer should be detailed to stand by and see that every man properly washes his mess-kit. Simply telling him to do it is not sufficient.

During the Spanish War an officer of Volunteer Artillery came to me one day and stated that about 75 per cent of his men were sick with diarrhœa, and that he could not find out what had caused it. He asked me if I would not come over and inspect his camp.

I told him that I would be glad to do so, and I immediately went to his battery kitchen, watched the cooks washing their cooking utensils, and watched the men wash their mess-kits. I found that they were doing exactly what I had surmised they were doing—namely, not washing the soap from kitchen utensils and mess-kits. I told him what the trouble was, gave him instructions how to correct the defect, and as a result the diarrhœa stopped in about three days. This is always a serious matter, but in this case it was doubly so because we were in the face of the enemy.

Now you must pay special attention to your rears. They must be properly constructed, and it will be necessary to post a sentinel over the rear to see that men cover their deposit at once. They won't do this unless there is someone standing over them to see that they do it. You must secure toilet paper; no matter how you get it, but you must have it. This is a proper charge against the company fund. If you don't do this, men will use newspaper, or more frequently will not use any paper at all, none being available. This method will soon produce piles, and you will have men on sick report as a result. Rears must be made comfortable; otherwise men will not use them and will get in the habit of going off in the bushes and defiling the camp-site.

Urinal cans must be placed in the company streets at sundown and whitewashed. Lime or ashes must be sprinkled where they are placed, and their use enforced.

Neglect the above precautions, and in a few days your men will all be sick and unfit for field service.

Selection of Camp-Sites.

The first and most important requirement for a camp is an abundance of good, pure water. This overshadows all other considerations. The next requirement is good ground, which will not become muddy in wet weather or very dusty in dry weather. The worst place that I can think of for a camp-ground is a plowed field. You want gravel or grass. The best place for a camp is a grove of trees—trees not too close together.

Always pitch your tents in the sun, so that they will get thoroughly aired out and dried. But you must have shade within at least two hundred yards of the tents, so that the men can go to it

during the heat of the day. If no shade is available, have your men place their blankets and ponchos on top of the shelter-tents. This will keep out the heat of the sun, air the blankets, and render the tent very much cooler—cool enough, at least, for the men to find shelter from the excessive heat.

Bathing-places must be provided for the men and they must be required to bathe at least three times per week. You have got to see that they do this; lice will develop if you don't, and any officer that allows his command to get lousy should be tried. To get rid of lice, boil all clothing; have men scrub themselves with strong laundry soap; cut the hair close; and pick over, sun, and beat the blankets. They are not difficult to get rid of if you go after them in a determined manner. Another method is to pack the blankets in boxes and spray them with formaldehyde. Do this at reveille, and in twelve hours everything in the blankets will be killed. The ammonia preparation used for cleaning your rifles is even more effective if used in this manner.

Flies.

The worst pest of a camp and the most dangerous enemy is the simple house fly. Fight them continually. Fly-traps, purchased or improvised, are extremely useful around kitchens and rears, although these may not be screened. You will be surprised at the number of flies that can be caught in the open by fly-traps, and it will astonish you what a difference they will make in a camp.

I could write a book on camps, but I have endeavored to bring out the most important points and the ones that are most frequently neglected. If you gentlemen will take care of the above, the rest will take care of itself.

Horses.

Horses must not be allowed in camp, and the corral should be at least five hundred yards from the men's tents, if possible. All horse-droppings must be policed up immediately and burned, as flies breed in manure in a short time.

Mounted officers and orderlies are prone to tie their horses in camp. This should not be permitted.

LECTURE No. 2.

OUTPOSTS AND CAMP GUARDS.

In the previous lecture you gentlemen were told something about placing your men in camp upon mobilization and how to care for them. This lecture will deal with the guards that will be necessary in order to preserve order in your camp and, if in the presence of the enemy, secure your camp from surprise.

Upon arrival at the camp, the first thing to do is to place a guard over your water supply. Set apart a place from which to get drinking water, then lower down a place for the animals to drink, and then still lower down a place for the men to bathe and wash clothes.

You will have to place a sentinel over the rears, which should be dug immediately after the tents have been pitched (nothing should be allowed to interfere with this). It is essential that the ground be not defiled in the slightest degree.

Sentinels will also be necessary over the corral, store tents, forage, etc.

These details having been made, you will have to establish the outpost, relieving the advance guard if the camp is at the completion of a march. Never place any more men on outpost than is absolutely necessary to accomplish the object—namely, to protect your camp from surprise. Outpost duty is very trying and wears the men out. On the other hand, the outpost must be strong enough to hold the enemy, if he attacks, long enough to allow your men to form and deploy to meet the attack. It is not necessary to surround your camp with a cordon of outposts unless operating against savages in minor warfare. In civilized warfare it is usually sufficient if the lines by which an enemy is likely to advance are covered. Remember, the outpost lines must always be convex—never, under any circumstances, concave; that is, the flanks must always be refused (thrown back), so that the enemy cannot work around them. It makes absolutely no difference what the formation of the ground is, this rule must be followed.

You must always have patrols out in front of your sentinels. Do not rely upon sentinels alone. Patrols should go about two

miles beyond the line of sentinels. You must patrol day and night. The neglect of this simple precaution caused the surprise of General Grant's army at Shiloh. Communication must be maintained between the different parts of the outpost at all times; signal flags, telegraph lines, mounted messengers, and infantry patrols being some of the means used. Everything must be reported to the outpost commander. It is infinitely better to report too much than too little. Experience will soon teach you the correct method. New troops are prone to neglect this very important duty. Never relax your vigilance. Simply because you do not see the enemy is no sign that he is not there. The Confederates formed their battle-line within 1,000 yards of the Union sentinels in broad daylight, at the battle of Shiloh, without being discovered. The mere fact that cavalry is out in front is no excuse for not being constantly on the alert. The enemy may have defeated your cavalry or driven it off at a flank, so there may be no cavalry there at all. It is a wise precaution to place a few men with signal equipment on any advantageous point from which a good view of the country may be obtained and too far to the front to be included in the outpost line.

A good way to remember the formation of an outpost line is to compare it to a hand with the fingers extended. Let the finger-nails represent the sentinels or line of Cossack posts, the second joints the pickets or supports, the knuckles the reserve, and the wrist the camp. In small commands the reserve is usually omitted as being unnecessary, the main body taking its place.

There are two general systems of outposts—one in which the entire front is covered by a line of sentinels and the other in which only the main avenues of approach are guarded by small bodies and the intervening space patrolled. The best results will usually be obtained by a combination of both systems. These systems are usually referred to in military works as the Cordon System and the Patrol System. There are two methods of establishing the Cordon System. The first method is to post small bodies of about twenty-five men each along the entire front at suitable intervals (these are called "pickets"), who send out sentinels to their front from 100 to 200 yards. (Distances always depend upon circumstances, how-

ever.) These pickets are backed up by larger bodies, called "supports," posted from 600 to 800 yards in their rear, one support for three or four pickets (depending upon circumstances), and in rear of the supports, at about 800 or 1,000 yards, the reserve. The camp would ordinarily be about 1,200 yards in rear of the reserve. These distances apply to a regiment as outpost for a division. For smaller commands the distances should, of course, be much less; but the distance from the Cossack posts to the supports or from the pickets to the support cannot safely be less than 400 yards, and from the supports to the reserve about the same distance. The main body in the above case could be about 600 yards in rear of the reserve.

Cavalry should never be used as an outpost for infantry, if it can possibly be avoided. This duty is much harder on cavalry than on infantry, and soon ruins the horses. Cavalry is too valuable for scouting and reconnaissance to be frittered away in this manner. This does not mean that cavalry patrols cannot be sent out in front of the line of sentinels; on the contrary, this should be done; but the pickets and supports should be composed of infantry. In the first two years of the Civil War the Union Army wasted its cavalry shamefully in this manner. It was due entirely to the ignorance of the generals in the proper use of cavalry. They learned better later on. Don't make the same mistake.

Single sentinels can be used in the day-time, but it is always better to use double sentinels at night, especially with new men. They see an advancing enemy in every bush and even in blades of grass. This is not so likely to happen if you place two men on guard. They have more confidence, and perform their duties better in consequence.

There are three systems of posting sentinels:

The Cossack Post System, in which small groups, consisting of an old soldier or corporal and three men, are sent out from the supports about 400 yards. The sentinel is posted direct from this small post, which is in concealment about 30 or 40 yards in rear of him. These small groups are usually relieved every twelve hours. These posts are of American origin, notwithstanding their Russian name, and were evolved by the Continental Army in our Revolutionary War. Our troops found that in operating in wooded

country, where the picket and sentinel system was used, the reliefs frequently lost their way at night and in the woods; so the system was devised of having every sentinel backed up by his own reliefs. This system has many advantages and has more resisting power than appears at first sight. Sentinels are not timid, knowing that they are closely backed up by a friendly post, and an additional advantage is that it takes fewer men than does the picket and sentinel system.

In the Picket System sentinels are furnished directly from the pickets and must be relieved from the picket. This requires that the picket be strong enough to furnish three reliefs for every sentinel posted. An additional strength must be allowed for patrols. These patrols reconnoiter in front of the line of sentinels and maintain communication with the supports and neighboring pickets.

Another system is to use what are called "sentry squads." The system is the same as the Cossack post, but your sentinels are double, and an entire squad takes the place of the group of four men. This is stronger than the Cossack system, being able to offer more resistance, but, of course, requires more men.

Frequently the best results will be obtained by a combination of all three. The nature of the ground will usually indicate what system to use.

I will now illustrate the different systems on the blackboard, and will be glad to answer any questions that you gentlemen may care to ask.

I am going to issue to each one of you a little card containing the orders for a sentinel on outpost. Retain these cards and look them over occasionally until you have committed the orders to memory. This is very important.

Sentinel's Outpost Orders.

The posts furnished by each picket are numbered from right to left, thus: Post No. 4, Picket No. 1; Post No. 1, Picket No 2, and so on.

Sentinels should watch and listen without betraying their own presence, but observation is the first consideration and concealment is of secondary importance. A sentinel must expose himself to see,

rather than limit his observation for the purpose of remaining concealed.

Sentinels must not smoke, and such conversation as may be necessary between them must be conducted in a whisper. The sentinel must not have about him any glittering accouterments; and, except in foggy weather or on a dark night, must keep his bayonet in its scabbard.

Each sentinel should clearly understand the following:

1. The countersign.
2. The number of his own post.
3. The number and position of his own picket and the name of its commander.
4. The position of the neighboring sentinels and of the examining post, when there is one.
5. The direction of the enemy and the probable line of his advance.
6. The points to which all roads, paths, and railroads in sight lead.
7. The names of all villages and rivers in view.
8. The signals by which he should communicate with the pickets or detached posts.

The mistake of giving sentinels too many instructions and orders should be avoided. If his mind is burdened with many details, the sentinel is likely to become hesitating, timid, and confused. The principal thing is that he should know where to look for the enemy and what to do if he sees him.

LECTURE No. 3.

MARCHES AND ADVANCE GUARDS.

Marching constitutes the principal occupation of troops in campaign, and is one of the heaviest causes of loss. This loss may be materially reduced by proper training and by the proper conduct of the march. A successful march, whether in peace or war, is one that places the troops at their destination at the proper moment and in the best possible condition. With new or untrained troops, the process of hardening the men to this work must be gradual. Im-

mediately after being mustered into the service, physical exercises and marching should be begun. One march should be made each day with full equipment, beginning with a distance of two or three miles and increasing the distance daily as the troops become hardened until a full day's march under full equipment may be made without exhaustion. A very good method is to march the men some distance from camp for drill, lay off the packs, complete the drill, and then put on packs and return to camp. If necessary, troops may be marched around the camp for a mile or two before the drill commences, in order to cover the desired distance.

A practice march conducted once a week has little, if any, value for untrained or unhardened troops. A practice march once or twice a month is, in my opinion, absolutely worthless. Its only result is to disgust the men, produce sore feet, and waste time that might with profit be devoted to something else. The marching efficiency of an organization is judged by the amount of straggling and elongation and the condition of the men at the end of the march.

The drinking of water on the march should be avoided as much as possible. If a man commences to drink early in the march, he is almost always sure to suffer from lack of water and thirst before the march is half over. Your non-commissioned officers must be instructed to see that men do not commence to drink from their canteens early in the march. I have found that a very good scheme to prevent the men from drinking water is to require them to place their canteens where they are hard to get at; this will frequently deter the men from drinking unless they are really in need of water. With the new infantry pack, the canteen can be carried on the back in the center of the pack in such a way that a man will have to get a comrade to get his canteen for him, as he cannot reach it himself. Many men will go without water in preference to getting some man to get their canteens for them. In any case, the man can't get at his canteen without the knowledge of his squad corporal.

Closing up during a halt or changing gait to gain or lose distance should be prohibited.

Most troops make the mistake of marching too fast. The gait should not be over two miles per hour until the men have become thoroughly hardened. Officers at the head of the column, setting

the pace, are frequently to blame for this. An officer leading a march should frequently turn around and observe the column to see how the men are standing it, and if he notices that the column is straggling, he should immediately reduce the pace. Nothing is gained by getting into camp with about half of your men.

I am going to mention another thing that hardly belongs here, but you should know it. Remember, the quartermaster sergeant, artificer, company clerk, and the two cooks always march with the company wagon or with the wagon train.

The column of twos should never be resorted to on the march unless the road is bad or is very dusty. It doubles the length of your column and makes it just that much harder for the men in the rear to keep up. Always march in column of squads, if possible. Allow the men to open out laterally, but make them keep well closed up. If this method is followed, it affords men an opportunity to pick their way to some extent, gives them plenty of air, and makes the march very much easier.

Two yards between men of the some rank is not too much, if the road space allows it.

File-closers should be directed to march at the head and rear of their companies.

An officer should always march at the rear of his company to see that men do not fall out and keep well closed up.

I have never believed that the ten-minutes rest prescribed in Regulations is sufficient. I have found in marching troops that I have always gotten better results by prescribing that each rest will be for fifteen minutes. Every man in the command knows beforehand exactly how much time he will have to relieve himself, adjust his equipment, fix his shoes, etc., and it keeps the command in a much better humor. It is very important to keep the men in good humor, and carefully avoid anything that will cause the slightest irritation. Mental worry or irritation wears a command out much faster than physical hardship. A happy and contented column will, without difficulty, march twice as far as a column that is annoyed or irritated or continually nagged. Whatever you do, never nag your men. If necessary to speak to them or correct a defect, do it kindly and cheerfully. Undue severity is very, very seldom nec-

essary. Now, this doesn't mean that men must be coddled, or sympathized with; on the contrary, this must be studiously avoided; but don't nag them or annoy them continually.

Another thing, never hurry your men in getting their breakfast or in breaking camp. Frequently, if this is neglected, the command will start out in a humor that will stay with the column all day and very materially affect its marching and fighting. If they are a little late, make up the time on the march by going a little faster or by marching five minutes longer than you would have had they been on time. Now, this doesn't mean that troops must not be taught to be prompt; but use judgment.

I never prescribe the hour for starting. I prescribe the hour for breakfast, loading wagons, and breaking camp, but I always reserve the right to say when the column will be placed in march. Frequently troops will be ready to start out ten or fifteen minutes before the time you have prescribed if you place it in orders. Take advantage of this, and move out when you have observed that everything is ready. If you hurry them, wagons will not be properly loaded, and this will cause delay later on by the loads slipping, etc.; so you gain nothing after all, and put the command in a bad humor in the bargain.

General Sherman once said: "No man can get the best out of his troops unless he commands their spirits as well as their legs." In order to do this, you must be in sympathy with your men and observe them continually. Take care of them, and they will not fail you when you want them.

Now you officers, upon getting into camp, must see that your men are comfortable first and that their wants are attended to, then have your own tent pitched and look after yourself. But remember, the men must always come first. They are the ones that do the work; you can do nothing without them. When they realize that you have their interests at heart, they will meet every demand that you make upon them without a murmur, and will never fail you when you need them.

Advance Guards.

If troops could march to the battle-field unmolested like the knights of old repaired to their tournaments, nine-tenths of the

difficulties of the art of war would be eliminated. Protection on the march is absolutely necessary, and the neglect of this very simple thing has caused countless defeats.

Had General Braddock (in the French and Indian War) covered his advance with an advance guard, or even a few patrols, he would never have walked into the ambush that he did and was defeated.

General St. Clare, of our Army, was sent by President Washington into the Northwest Territory in 1796, after the Indians. He was especially cautioned by Washington to cover his advance and be careful of ambuscades. Notwithstanding this fact, he marched his column without an advance guard or without even advance skirmishers, and was struck by the Indians when crossing a river and his column was badly defeated. Up to the time of the engagement, like Braddock, he had seen no signs of the enemy, and consequently thought that there was none near.

In 1876 General Crook conducted a march of 1,000 miles through a country infested with 10,000 Indians and never saw one. However, he had an advance guard, and was not attacked or surprised. The Indians, however, had his column under constant observation.

I mention these few instances to show you what will happen if you neglect this important precaution, and also what may happen even when you do have an advance guard. Simply because you don't see the enemy is no sign that they are not there. Never, under any circumstances whatever, neglect to cover your march if there is the slightest chance of encountering the enemy.

Napoleon once said: "Always place your best troops in the advance guard. These troops must be well drilled and instructed, and will be required to maneuver continually."

Poor troops in the advance guard are a constant source of irritation and embarrassment to a column commander, and will delay the advance of the column instead of facilitating it as they should do.

It is the business of the advance guard to provide for the security of the column on the march, remove obstructions on the line of march, repair bridges, brush aside small bodies of the enemy, and in general to facilitate in every way the march of the column.

The advance guard provides for its own security by suitable formations, and not by a cautious and timid advance. This is a common error committed by new troops in the field and also at drill. Instead of advancing briskly, they stroll along at about one and one-half miles per hour when they should be going three at least. The advance guard continually meets with checks, due to the necessity of reconnoitering points some distance from the line of march, clearing the road, fixing bridges, etc.; consequently they must maintain a good gait, so as not to delay the main body. Remember this and watch it at drill.

Frequently a marching column will have to protect itself from many directions. This object is secured by the means of advance guard, flank guards, and a rear guard. Remember, on a retreat the advance guard is usually called "leading troops." The rear guard in this case is the important body, being next to the enemy; but leading troops are always necessary to repair and clear the road, prevent a hostile population from damaging bridges, obstructing the road, etc.

The principle upon which an advance guard is formed is this: The enemy must first be met by a small body, called a "point," usually a squad; this is backed up by a still larger body, and so on until the main body is reached.

Each fraction or subdivision must be large enough to hold the enemy long enough to allow the supporting fraction ample time for deployment. The names of these different fractions are as follows: point, support, and reserve.

A company usually sends forward only a point—about one squad—about 400 yards.

A battalion should send forward a company, which would form the support, and it in turn would send forward a point. Distance of point from company, about 300 yards; distance of company from battalion, about 500 yards. (This with war strength companies.)

A regiment should place a battalion in the advance guard if the enemy is close and liable to be met. If the enemy is not close and active, two companies would be sufficient, but this has the disadvantage that I spoke about in a previous lecture, of breaking up tactical units, which should always be avoided.

A brigade would usually place a regiment in the advance guard, although two battalions would usually be sufficient; but here, again, we don't want to break up tactical units, so we send the entire regiment.

The reserve usually marches with as much comfort as the main body.

Service with the point and with the support is usually very trying, owing to the necessity of sending out patrols, clearing the road, etc.

Normally, flankers are not sent out to habitually march abreast of the column. This was the old method and has given way to the method of sending out patrols to examine important points, or take station on some high point and observe until the column has passed or there is no sign of danger. Flankers sent out 150 yards from the column are practically worthless; 400 or 500 yards is the minimum distance at which they can be of any use. Remember, we are not trying to find a few men or a scout or two, but we are trying to guard the column from a force large enough to do it some damage.

Flank patrols are sent out from the support and also from the reserve. They will be left behind and must not attempt to rejoin their own subdivision. They rejoin the column when their mission has been accomplished and then join the nearest unit, reporting to its commander. They rejoin their own unit at the first opportunity. Cavalry and mounted scouts or orderlies can save the infantry very materially if detailed for this work.

If you have any mounted men with the column, it is a good plan to send a mounted point about 600 yards in advance of the infantry point.

Advance guard patrols are conducted like other patrols. I will explain the conduct of patrols in a later lecture.

When the column halts at the end of the march or for any length of time before the end of the march, the advance guard forms what is called a "march outpost." The march outpost is not as complete as a regular outpost, but endeavors to cover all important points and avenues by which an enemy might advance. They are responsible for the safety of the column until relieved by the regular outpost. Outposts are usually relieved in the evening, in which

case the organization forms the advance guard the following day. In large commands troops are usually detailed on this duty for several days at a time, in which case they form the necessary outposts until their tour is finished. In the Japanese-Russian War it was the custom in the Japanese Army to detail troops on this duty for two weeks at a time. The Japanese officers told our military attaché that the system was very satisfactory. This was with large forces, of course. With small commands, it is usually better to change the outpost and advance guard daily. When changing the outpost, it is usually best to relieve them early in the morning or at evening. If the enemy attacks, he will usually attack at this time, so you will have double strength on the outpost line at that time.

Under some circumstances a skirmish-line with wide intervals furnishes a very good formation for the protection of the column. In this case the support can follow in column of squads in one or two columns, as may be necessary.

Rear guards are formed and maneuvered like advance guards, only the formation is reversed.

A flank guard should always throw out patrols, well out on the exposed flank. Flank guards will usually need a small point. The advance guard commander should also command the flank guard, unless circumstances render it not advisable.

Advance cavalry will usually be under the command of the advance guard commander and, of course, will be several miles in advance of the infantry point. Independent cavalry is under the orders of the commander of the force and is not under the control of the advance guard commander.

This is a very large subject to cover in one small lecture, but I have endeavored to bring out the principal points.

I will be glad to answer any questions.

LECTURE No. 4.

RECONNAISSANCE AND PATROLLING.

"How can any man tell what to do when he is ignorant of what his enemy is about?" This remark was made by a celebrated French general.

Military information may be considered under two general heads—namely: (1) that collected by the general staff in time of peace; (2) that obtained by troops in the field after the outbreak of hostilities. The former relates to the geography, resources, and military strength of the various nations, and enables the War Department to decide upon the size of an army or expedition, the proportion of the different arms, character of clothing, equipment, etc., that may be necessary in the event of war. The latter relates to the theater of operations and to the position, strength, intentions, etc., of the enemy in the field, and is absolutely essential to enable a commander properly to estimate the situation. With the first this paper has nothing to do; I will discuss the latter under "Reconnaissance and Patrolling."

Information in the field is obtained from various sources—higher commanders, adjoining troops, inhabitants, newspapers, letters, telegraph files, prisoners, deserters, spies, maps, and reconnaissance by scouts and patrols.

Knowledge of the terrain, always essential to a correct understanding of the situation, is obtained from a careful study of available maps, supplemented by thorough reconnaissance. This is why it is absolutely necessary that every officer and non-commissioned officer know how to read a map intelligently. Very few military persons are required to make maps, but all military men will be required to read them, if they are going to play the game with any chance of success.

Reconnaissance begins as soon as the theater of possible operations is entered, and continues throughout the campaign. No matter what other sources of information may be available, reconnaissance must be depended upon to obtain the information upon which all tactical movements of troops should be based. Reconnaissance preceding deployment for action is of vital importance. Reconnaissance, remember, is continued throughout the action; it does not cease when contact is established.

Patrols should always be sent out to the front and flanks to try to locate the enemy's line, to find out where his flanks are, and to report upon the nature of the ground over which the attack will have to be delivered. A neglect of this precaution has caused

numerous defeats. The failure in this respect at the battle of Waterloo in 1815 caused the French cavalry, who were ordered to charge the British lines, to ride into and fill up a sunken road which was in their front and was not known to be there. Of course, the charge failed, and many men were lost needlessly. A swamp or marsh in your front not reported may stop the most determined infantry attack.

Patrols sent out to reconnoiter the ground are usually called "ground scouts."

It is absolutely essential that the enemy's position be located before the deployment commences; otherwise you are very liable to start your line against the enemy in the wrong direction, and this spells "defeat."

It may be taken as a rule that troops deployed and under fire cannot change front. Therefore it is absolutely necessary that your line be started in the proper direction at the commencement of the action. Even a slight error in this respect is apt to cause defeat. Your attack will not go home where you want it to, and thus may fail. Even after your attack has been launched in the proper direction, it is difficult to keep it going in the same direction. There is always a tendency to oblique, which must be guarded against. Frequently it will be necessary to halt the entire line and start the attack over again by sending a fraction of the line forward in the correct direction and requiring the remainder of the line to guide on them.

Reconnoitering patrols must be careful to neglect nothing in gaining information. Remember, in questioning civilians it is better to avoid using military terms with which they are not familiar. Don't ask them if they have seen cavalry, infantry, or artillery; but ask them if they have seen soldiers on foot, or on horseback, or with guns on wheels. Don't ask them how many men they have seen because estimates of civilians in this respect are almost sure to be worthless; but ask them when the soldiers commenced to arrive when the last of them got in, etc. You will then be able to calculate the time, and thus estimate the number of men.

Be careful, in your messages, to separate what you have seen yourself from what you believe or have been told. Don't say,

"The enemy is at X," unless you have seen them there yourself; but say, "A civilian reports that the village of X is full of soldiers," or you may say, "I believe that the village of X is occupied by the enemy, because I have seen the following indications" (here mention what you have seen).

In questioning civilians, try to enter into a conversation with them, and frame your questions so that they will think they are prompted by natural curiosity. Don't let them think that you are trying to extract military information, because, if you do, they will likely shut up like a clam, unless you are in friendly territory. Remember, the average town-bred civilian knows little, if anything, of the surrounding country. Country doctors, peddlers, and any man who is in the habit of traveling is more apt to have the information that you desire. Frequently valuable information can be obtained by looking through letters in the post-office and by examining telegrams on file in the telegraph office. Prisoners are always a valuable means of gaining information, but the best person to question them is the guard over them, who can enter into conversation, and thus extract valuable information. Treat your prisoners well, and you will usually be able to get more information from them than you would if you abuse them.

Be careful, if you are captured, not to give any information whatever. Don't attempt to give false information, because you may unwittingly give real information.

In reconnoitering, remember it is information that you are after and that you must get it. Don't be afraid to take any risk in order to accomplish your mission. If the safety of your men were the only consideration, they could be left off the battle-field, and then no one would get hurt.

Napoleon once said, "You can't make an omelette without breaking eggs." Frequently you will not be able to get information without running risks and losing some men, but it is all in the game. It is team-work that counts, and we want our team to win, no matter what it costs.

Infantry reconnoitering patrols rarely go more than two miles in advance of supporting troops. If it is necessary to reconnoiter beyond that distance, it is better to send cavalry or mounted men.

Information, to be of any value, must be immediately communicated to your commanding officer. An hour or a few minutes' delay may render important information worthless. If information is very valuable, send it by different messengers, who will return by different routes, so, if one man is captured, the other man may get through.

Patrols.

Patrols are roughly divided into two classes—small patrols and strong patrols. A small patrol consists of from three to nine men. A strong patrol consists of from ten men to a company.

Patrols are classified as reconnoitering, harassing, expeditionary, visiting, and combat patrols. In special cases patrols may be given missions different from the above.

A patrol is a detachment sent out from the command to gain information, or to prevent the enemy from gaining information, or to harass the enemy's outposts or columns on the march, or to blow up a bridge, or capture prisoners, or for any special mission where a small force is sufficient.

In general, it may be said that the formation of a patrol conforms to the formation of a large body of troops; that is, it should have an advance guard, rear guard, and flank guards. The patrol must always be formed so as to facilitate the gaining of information, or to enable it to accomplish its mission and secure the escape of at least one man should it be cut off or captured.

The usual mistake is to form the patrol so that the men cannot see more than one man can. This is the result of not having the proper formation or sufficient intervals.

Patrols must always have an advance and rear guard. If the patrol is large enough, it should also have flank guards. It is usually sufficient if these bodies are represented by one man, although with strong patrols three or four men might be placed in each guard.

When the patrol leader receives his instructions, he should be careful to explain them in detail to all the men of his patrol, and be sure that each man thoroughly understands them. This is necessary in the event of his being killed, captured, or becoming separated from his patrol. This is very important. Don't forget it. He inspects his patrol and sees that every man is properly armed,

equipped, and has good shoes on, and that his feet are in good condition, so that he can march and not delay the patrol. No man should be taken along who has a cough, because it might betray the presence of the patrol to the enemy. Of course, no man should be taken who is intoxicated or sick.

The patrol leader should be careful to see that equipments do not rattle or glisten in the sun.

The patrol leader should be sure that he thoroughly understands his orders, and knows exactly what he should accomplish and just what he is expected to. Don't make the mistake of giving the patrol leader too many instructions. This has a tendency to confuse him and make him slight his work, or he may try to accomplish too much.

Patrols should be sent out to accomplish one or at most two objects. If you desire to have three or four things accomplished, it is better to send out three or four patrols, instead of entrusting them all to one patrol.

The patrol leader should be careful to be sure that he knows where he is to go, how far he is to go, whom messages are to be sent to, and where they are to be sent, also when he is to return. It is always better to return by a different route from the one followed on going out, so that your patrol cannot be ambushed.

Patrols advance cautiously, but not timidly. Note well the difference. They should endeavor to keep concealed as much as possible, but concealment must not interfere with the accomplishment of their mission.

Hills should be carefully reconnoitered, and from the tops of them a good view of the surrounding country can usually be obtained. This should never be neglected. The man detailed for this work should work his way carefully to the top, remain in concealment while reconnoitering, and should withdraw with the same caution that he exercised in going up, whether anything is seen or not. The other fellow may be a better scout than you are and may keep concealed. Remember, just because you don't see the enemy is no sign that they are not in the vicinity.

In reconnoitering exposed places, it is better for the patrol to remain in concealment for some time and observe the house or

village before sending anyone in to complete the reconnaissance. Then send in two or three men, while the patrol remains in concealment, ready to support them, if necessary.

Small patrols should never enter a house or enclosure without carefully reconnoitering it beforehand.

Never trust the inhabitants of a hostile country. The neglect of this precaution has caused the capture of countless patrols and detachments.

Now, don't try to fight every chance you get. This is a frequent mistake made by new troops. Remember this: A patrol sent out to gain information differs from one sent out to prevent the enemy from gaining information in this respect: the first one never fights unless forced to; the other one fights every time it has an opportunity. One avoids trouble, and the other is looking for a row all the time. Be sure you know to what class you belong before you start out.

The patrol leader (and the men, if possible) should be familiar with the enemy's uniforms, so that they can report intelligently upon what they see.

The number of a regiment in your front may seem a small matter to you, but it may be of vital importance to the commander. For example: Headquarters has information that the 27th Infantry Regiment belongs to the 7th Brigade of the 3d Division; they know that two days ago that division was sixty miles from the battlefield. Now a patrol sends in information to the effect that a dead soldier belonging to the 27th Infantry Regiment was found in the bushes. You see what that means to headquarters; it means that the 3d Division has arrived on the line, or at least the 7th Brigade has arrived; that means that the enemy has received reinforcements—a very important thing for headquarters to know.

If you are familiar with the enemy's uniform and see a soldier in a certain uniform on outpost or on patrol and report this fact, it may amount to the same thing as in the previous case.

Be careful not to report mounted infantry as cavalry, or horse artillery as field artillery, for the same reason. In horse artillery every one in the battery is mounted; in field artillery the cannoneers ride on the limbers and caissons. You can tell mounted in-

fantry from cavalry, because they will not have sabers. All these little things are important.

Before the armies come into actual contact, it is very important that the first sight of the enemy should be immediately reported. After the first detachment is reported, if you happen to see other small detachments, it is not necessary to report their presence.

In writing messages, take plenty of time and make your message clear and of some value. It is better to take ten minutes to write a message that is of some value than it is to write one in thirty seconds that means nothing. Always put the time that the message was written on it. Time means everything in war. If you neglect this, your message has little value, if any.

When friendly patrols are met with, always exchange information with them. You or they may never get back to your lines, and if you neglect this, much valuable information may be lost.

I am going to issue you little cards, which contain things that every patrol leader (and private, for that matter) should know by heart. Study them and commit their contents to memory.

I will now illustrate on the blackboard the formation of patrols.

Instructions for Patrols.

A patrol is a detachment sent out from a command to gain information of the country or of the enemy, or to prevent the enemy from gaining information.

In special cases patrols may be given missions other than these.

A patrol sent out to gain information differs from one sent out to prevent the enemy gaining information in this respect: a patrol sent out to gain information does not fight unless absolutely unavoidable; one sent out to prevent the enemy from gaining information attacks every small body or patrol of the enemy that it encounters. The first avoids trouble and hides when bodies of the enemy are met with, and the other is hunting for trouble all the time.

Patrols are roughly divided into two classes—small and strong. A small patrol consists of from three men to a squad. A strong patrol consists of from nine men to a full company.

Small patrols are better for gaining information than large ones.

An infantry patrol rarely goes more than two miles in advance of the outpost sentinels.

A patrol should always be formed so as to permit the escape of at least one man, if suddenly surprised or attacked.

A patrol should be formed as follows: main body, advance guard, rear guard, right flank guard, and left flank guard. If a patrol is very small, some of these will have to be omitted, but it must always have an advance and rear guard.

With a patrol of four or five men the distances may vary from 25 to 50 yards; with a larger patrol they may be as great as 100 yards.

At times a column or files or a thin skirmish-line with suitable distances or intervals may be a satisfactory formation.

In very open country distances may be as great as 300 yards without danger.

When ordered to prepare for patrolling, the patrol leader assembles his men, inspects their arms and ammunition, and sees that no man is sick, intoxicated, or has a cough, or has any papers or maps on his person that might betray information to the enemy if captured. He sees that their accouterments do not glisten or rattle when they march. He repeats his instructions to his men, and must be sure that every man thoroughly understands them.

Besides his arms and ammunition, the patrol leader should have a compass, a watch, a pencil, a note-book, and, when practicable, field message blanks and a map of the country.

Before sending a message, written or verbal, make the messenger repeat it.

Written messages should state the place, date, hour, and minute of their dispatch.

In friendly territory, send one messenger; in the enemy's country, two.

Before starting out, be sure that you know what is expected of you—where you are to go, how far you are to go, and when you are to return.

Be sure you know where your messages are to be sent.

Be careful, in your messages, to separate what you know from what you have heard or what you believe.

State whether you will remain where you are or where you intend to go.

Combat Patrols.

A combat patrol is one which is always sent out from a deployed line to guard its flanks from surprise and attack. It must be well out to the flank and slightly in advance of the line, never in rear of it. If attacked, it must resist to the last man until the line has been warned and has had time to prepare for the attack against its flank.

LECTURE No. 5.

CONTACT AND DEPLOYMENT FOR ACTION.

Usually an action opens by the advance guards coming in contact, or the advance guard may run into the enemy's outposts.

Whether an action will commence at once under the above conditions will depend entirely upon the intentions of the commanders and the orders given to the outpost and advance guard commanders. An advance guard commander may have orders to halt when he encounters the enemy, or he may have been instructed to attack at once, or reconnoiter the enemy's line and develop his position. In any case the attack should not be ordered until careful reconnaissance has been made.

I spoke to you in a previous lecture of the danger of attacking an enemy's position before carefully locating his line. If you butt right in and deploy a large percentage of your men at the commencement of the action, and your guess has not been correct, you will be defeated.

An action is usually preceded (after contact has been obtained) by cavalry combats and engagements between patrols until the entire line has been reconnoitered and you have found the weak point in the enemy's line, or the most favorable ground over which to deliver your attack.

The commander of the troops should always get as far to the front as he can do so with safety, and, if possible, reconnoiter the ground himself before he orders an attack. He should decide on a plan of attack and carry it through. It is very difficult, if not impossible, to change your plan after you have once started the attack;

so decide just what you are going to do, and then do it. Don't haggle, don't vacillate—decide on a plan, and then stick to it.

The difficulty of reconnaissance increases in proportion to the measures adopted by an enemy to screen himself. You must expect this, so don't be disappointed when you find that it is difficult to obtain any information. Frequently it will be necessary to send forward thin lines of skirmishers to make the enemy show himself and disclose his position. Sometimes it is impossible to obtain satisfactory information until after the action has begun, and that is why you want to avoid a premature deployment.

Remember that each separate column moving forward to the attack or to deploy for action reconnoiters to its front and flanks, irrespective of the fact that they know friendly troops are on their flanks. They must maintain communication with these bodies.

Battalion commanders in the first line establish patrols to observe and report the progress or conduct of adjoining troops when these cannot be seen.

Always commence an action by deploying a fraction of your command; you can then control the progress of the action by sending in the supports and prolonging your line to the right or left as the case may require. For example: A company would usually place one platoon in the firing-line; a battalion, one company; a regiment, two companies; a brigade, one battalion. As the fight opens and you come under fire, you can then tell where to put in your supports and whether the line should be prolonged to the right or left or in an oblique direction. If the first small fraction has not been deployed in the correct direction, no great amount of harm has been done, and you can rectify your mistake before it is too late.

Deployment for Action.

After contact has taken place and the reconnaissance has commenced, troops must be moved up to the front under cover and massed, preparatory to deployment.

Battalions in close column, regiments in column or line of masses, etc., or troops can assume the formation of a line of columns. A regiment in line of columns, with appropriate intervals between battalions; each battalion in column of squads, or the formation

may be a line of company columns; the head of each company on the same line, with proper intervals between companies, each company in column of squads, etc. The terrain and the conditions of the action will govern this. You might have three lines, each battalion in line of company columns.

Now, don't forget your combat patrols, well out on each flank. They should be sent out as soon as the deployment commences. A deployment commences as soon as the regiment, battalion, or company breaks from the column of march.

When moving forward to the attack or to take up a position from which to deploy for action, remember to leave your wagon trains well to the rear, where they will be in no danger and where they will not be in the road. If you are victorious, the trains can come up; and if you are defeated, word can be sent to them to retreat, and they will be sent out of the way before your troops want to use the road. A neglect of this simple precaution has turned many repulses into routs and caused the loss of numerous wagon trains that should have been saved.

Remember, each battalion is provided with two escort wagons, called "combat wagons"; these wagons follow the battalion wherever it goes, and are loaded with two bandoliers of cartridges for every rifle in the battalion. This is called the "extra ammunition." This ammunition is issued just before the battalion commences its deployment, two bandoliers to each man; a soldier will thus go into action with 220 rounds, which should last him through any ordinary action.

The ammunition supply of troops on the firing-line is supplemented by the ammunition collected from the dead and wounded. Company commanders are charged with this duty. The major orders the issue of the extra ammunition.

These combat wagons, when empty, immediately return to the rear, refill, and then move forward, halt under cover, and endeavor to locate their battalion, inform its commander where they are, and await orders. They are not part of the regimental train, and are not supposed to be used for any other purpose. The company hand-litters are carried on them when going into action. It is forbidden to place any other articles on these wagons.

Remember that troops going into action cannot expect to have that day more ammunition than they can carry into the action with them, supplemented by that collected from the dead and wounded.

The combat wagons, unless otherwise ordered by higher authority, march directly in rear of their battalion.

LECTURE No. 6.

THE ATTACK.

Modern combat requires the highest order of training, discipline, leadership, and morale on the part of the infantry. Complicated maneuvers are impracticable. Efficient leadership and a determination to win by simple and direct methods must be depended upon for success.

The duties of infantry are many and difficult. All infantry must be fit to cope with all conditions that may arise. Modern war requires but one kind of infantry—**good infantry.** In local combats, which make up the general battle, the better endurance, use of ground, fire efficiency, discipline, and training will win. It is the duty of the infantry to win the local successes which enable the commanding general to win the battle.

The successful advance of one company allows the battalion to advance; the advance of the battalion lets the regiment forward; the advance of the regiment lets the brigade forward; and this in turn lets the division advance, pierce the enemy's line, and thus win the battle. You can thus see the responsibility which rests upon the company commander. One company may win or lose a battle by the manner in which it is handled.

Infantry must be trained to expect and bear the heaviest losses in combat and on the march without becoming discouraged. It is your work. Play the game for all it is worth. Good infantry can defeat an enemy greatly superior in numbers, but lacking in training, discipline, and morale.

After the mechanism of extended order drill has been learned with precision in the company, every exercise should be, as far as practicable, in the nature of a maneuver (combat exercise) against an imaginary outlined or represented enemy. Company extended

order drill may be conducted without reference to a tactical situation, but a combat exercise, whatever the size of the unit employed, should be conducted under an assumed tactical situation.

Self-reliance, initiative, aggressiveness, and a conception of team-work constitute the fundamental characteristics of successful leadership.

A good plan, once adopted and put into execution, should not be abandoned, unless it becomes clear that it cannot succeed. After-thoughts are dangerous, except as they aid in the execution of the original plan.

Combats that do not promise success or some real advantage to the general plan should be avoided. Don't fight just for the sake of fighting.

Complicated maneuvers are not likely to succeed in war.

Officers must show themselves true leaders. They must exact of their troops the strictest discipline on the battle-field. Lax discipline and slipshod methods will never succeed.

Constant efforts must be made to spare the troops all unnecessary hardship and fatigue, so as to conserve their energies for the supreme test.

A commander takes full and direct charge of the firing-line only when the line has absorbed his entire command.

Commanders should tell their subordinates what they want done, but not how it is to be done. If you can't trust the man to do the work, detail someone else.

Subordinates must be loyal to their commanders and strive in every way to carry out their wishes. A great deal of latitude is necessarily allowed subordinates, but this must not become license on their part.

Remember, when the men of two or more units intermingle on the firing-line, all officers and men immediately submit to the senior.

Officers and platoon guides seek to fill vacancies caused by casualties. Each seizes any opportunity to exercise the functions consistent with his grade, and all assist in the maintenance of order and control.

Any officer or non-commissioned officer who becomes separated from his proper unit and cannot rejoin it must at once place

himself and his command at the disposal of the nearest higher commander. Remember, this is team-work, and team-work is what wins.

Soldiers must be taught the necessity of remaining with their companies, but those who become detached must join the nearest company and serve with it until the battle is over or reorganization is ordered.

Long-range fire is permissible in pursuit on account of the moral effect of any fire under the circumstances; at other times it is of doubtful value.

In attack, the desire to open fire when losses are first felt must be repressed. The attack which halts to open fire at long ranges will seldom succeed. You should endeavor to work up to within 800 yards before opening fire—1,000 yards at most.

The men must be impressed with the fact that, having made a considerable advance under fire and having been checked, it is suicidal to turn back in daylight. You must stay where you are until supported or until you can retire under cover of darkness.

Confidence in their ability to use the bayonet gives the attacking troops the promise of success. Remember, only the offensive wins.

The best protection from the enemy's fire is a well-directed and delivered fire from your own line.

Always keep out a formed reserve and don't throw it in until the charge is ordered.

Thirty rounds in the right pocket section of the belt will be held as a reserve to be expended only when ordered by an officer. Men continue to fire until they get down to this reserve, when they cease firing. If asked why they are not firing, they report that they are down to the reserve thirty rounds.

Men are never sent back from the firing-line for ammunition. Men sent forward with ammunition remain with the firing-line.

At the formation of the company, squads and platoons are designated. These assignments and designations are never changed in battle. Losses in the platoon are filled from the officers and noncommissioned officers of the platoon or from reinforcements arriving on the firing-line. A reinforcement of less than a platoon has little value. It will be avoided. The original platoon divisions of the

companies in the firing-line should be maintained and should not be broken up by the mingling of reinforcements.

Men joining the firing-line should go forward, when a rush is ordered, with the men on their right.

In general, the company when acting alone, is employed according to the principles applicable to the battalion; the captain using his platoons like the major uses his companies, making due allowance for the difference in strength.

Five or six officers and men, selected from the most accurate estimaters in the company, are designated as range-finders, and are specially trained in estimating distances.

Volley firing has limited application. In defense it may be used in the early stages of an action, if the enemy presents a large, compact target. It may be used to get the range if the strike of the bullets can be observed. It may be used by troops using fire of position and supporting the attack.

Fire at will is the class of fire usually employed in attack and defense.

Clip fire has limited application. It is principally used: (1) In the early stages of the action to steady the men by habituating them to brief pauses in the firing; (2) to produce a short burst of fire.

All parts of the target are of equal importance. Care must be exercised that the men do not slight its less visible parts to fire at a part that can be plainly seen. A section of the target not covered by fire represents a section of the enemy's line which you are permitting to fire with peace-time accuracy.

Troops must get used to the idea that they must learn to shoot at a locality, and not at a visible target. If the enemy knows how to play the game, you won't see him at all; that is why you must shoot at the place where he is most likely to be.

In combat the platoon is the fire unit.

The more effective the fire to which the enemy is subjected the less effective will be his fire and the less you will suffer from his fire in consequence.

The distance between the firing-line and the supporting group or groups will vary between wide limits. When cover is available, the support can be as close as 50 to 100 yards; when such cover is

not available, it should not be closer than 300 yards; it may be as far as 500 yards in rear, if good cover is available and is not obtainable at a lesser distance. But it is where it can support the line most effectively; remember that.

The safety of the men is of a secondary consideration. If the safety of the men were the only consideration, leave them off the battle-field, and then no one would get hurt.

In the absence of express directions from the major, each captain of a flank company determines when an advance by rushes will be attempted. This company will then become the base company, and the other units must conform to its advance.

The major or senior officer on the firing-line determines when bayonets shall be fixed and gives the signal. The Bulgarians in the late war habitually fixed bayonets at about 600 yards, and this seems to be a good rule to follow. The support always fixes bayonets when the firing-line does.

The commander of the firing-line determines when the charge shall be made—subject, of course, to control of higher commanders. When the charge has commenced, all troops must join in it.

When officers or men belonging to the fighting troops leave their proper places to carry back or care for the wounded, they are guilty of skulking. This offense must be repressed with the utmost rigor.

An envelopment of both flanks should never be attempted without a very decided superiority of numbers.

Officers, platoon leaders, guides, and musicians are equipped with whistles. Company commanders have a whistle of a different tone from those used by the platoon commanders, guides, and musicians.

Should the major (in battalion) or the captain (in company) fail to order out combat patrols, it is the business of the captains of flank companies, or lieutenants of flank platoons, to send them out. **Do not forget this.**

I believe that the best formation for a company or battalion to assume in delivering an attack is to form in four echelons. Place one company in the firing-line, two in support about 300 yards in rear and uncovering each flank, and one company in support (re-

serve) about 500 yards in rear of the center or in rear of the exposed flank. The company would, of course, place platoons where the major uses companies. The firing-line should be deployed at about four paces interval, the supporting echelons at two paces interval, and the support directly in rear (third line) at one pace interval. If this formation is assumed, your flanks are secure, because the supports in rear of the flanks can change front (platoon, right or left) to meet the unexpected attack.

You can reinforce the firing-line by coming up on a flank or by thickening the line already formed. You have sufficient strength in rear also. The firing-line can be prolonged with facility to the right or left, as desired.

You do not commit too many men to the action at first until you know where you want the attack to be delivered.

See diagram on following page.

Don't forget your combat patrols—well out on the flank and slightly in advance of the firing-line; never in rear of it.

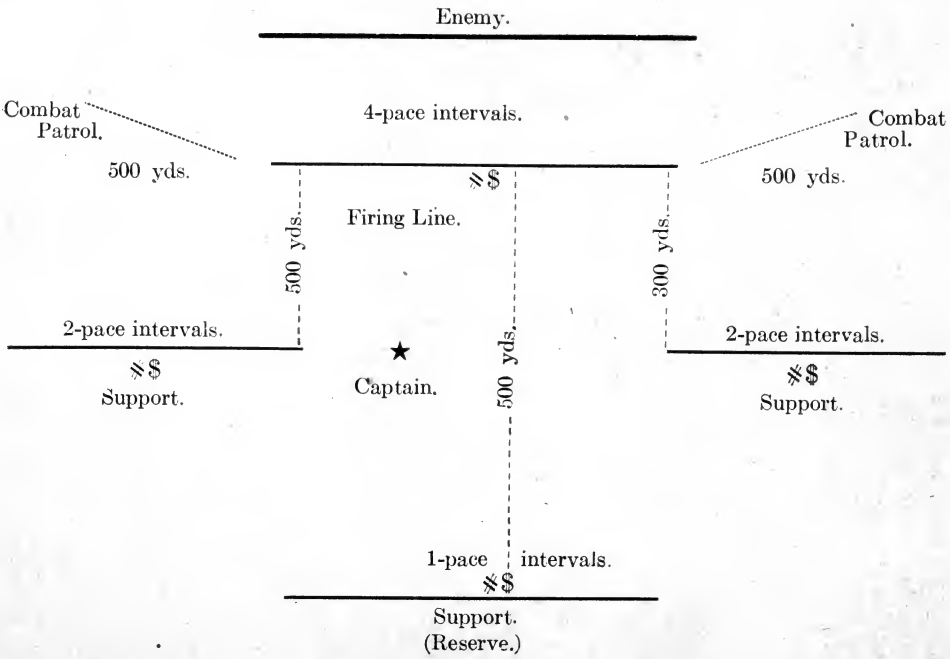
The platoon guide is on the left of the platoon commander when the platoon is deployed and at a halt; when advancing, the platoon commander is in front of his platoon and the platoon guide is in rear of it. The platoon guide watches the company commander for signals. The platoon commander must watch the platoon and receive signals from the company commander through his guide.

When the company deploys, the first sergeant (unless in command of a platoon) and the two company musicians immediately join the captain and remain with him unless he sends them elsewhere.

Losses in the platoon are filled from the officers and non-commissioned officers of the platoon and from those arriving with reinforcing troops.

The original squad and platoon divisions in the firing-line must be preserved, and must not be broken up by the arrival of reinforcing troops. The original squad divisions may later contain enough men to make it advisable to handle it as a platoon, in which case new squads may be created.

It is the business of all officers and sergeants to continually


Enemy.
Combat Patrol.
4-pace intervals.
Combat Patrol.
500 yds.
500 yds.
Firing Line.
500 yds.
300 yds.
2-pace intervals.
2-pace intervals.
Captain.
500 yds.
Support.
Support.
1-pace intervals.
Support.
(Reserve.)

keep the line organized and under control. The appoint new squad leaders, etc., when necessary.

Every opportunity and lull in the fight must be utilized to the utmost to reorganize the line, create new squads and platoons, and appoint new leaders to take the place of those lost in action.

LECTURE No. 7.

THE DEFENSE.

Only the offensive wins, but there are times when it is absolutely necessary for troops to act on the defensive.

Frequently in war it will be impossibe to attack with new or untrained troops, because they lack the ability to maneuver. Troops that cannot maneuver are totally unfit for the attack.

One of the most potent causes of the defeat of Turkey in her late war with Bulgaria was the lack of ability to maneuver. The Turkish troops, when once deployed and placed in position, had to stay there. The Bulgarians, on the other hand, being highly trained, could just draw circles around them and hit them when and where they pleased. It is a very good thing for a soldier to know how to shoot, but he has got to know how to maneuver also or you can't place him where you want him and get the best out of his ability to use the rifle. Even on the defense it is frequently necessary for troops to maneuver, in order to meet flank attacks, etc.

The first requisite of a good defensive position is a free field of fire in its front and flanks. The flanks should rest on some natural obstacle which will render them secure from being turned—a swamp, a lake, a large river, or a mountain, for example. The next thing is that there must be no commanding ground within good rifle range, which the enemy might occupy and enfilade your line. There must be good means of communication between all parts of your line. A position for defense in which your line is separated by a lake, a river, a hill, or a deep ravine is faulty. Half of your line may be defeated before the other half can come to its assistance.

Troops on the defensive always intrench. New troops don't like the fatigue incident to this, but the officers must insist upon it and see that it is done. New troops frequently fail to appreciate

the advantage of intrenchments, and will almost invariably slight the work if not carefully watched. Intrenchments are of no value unless properly constructed. It is manifest that if the minimum thickness of earth required to stop a bullet is 2½ feet, it is folly to throw up a parapet 1½ feet thick; but this is just what new troops will do if you do not watch them. After they have been in service for some time, they learn the value of intrenchments and will construct them properly of their own accord, but they won't do it at first. They are prone to throw away their intrenching tools in preference to carrying them; this you must also watch. You will be sorry some day if you don't.

Another thing: in choosing a defensive position, occupy one that the enemy cannot avoid, but must attack or give up his mission. If you take up a position on some hill that the enemy can avoid by marching around it and then proceeding on his mission, what have you accomplished? Nothing. If he knows his business and can accomplish his mission without attacking, he certainly will not attack you simply because you are there.

Deployment for the Defense.

To a certain extent the rules laid down for deployment in the attack hold good in the deployment for the defense, although it is permissible to place more men in the firing-line at the commencement of a defensive action than in the attack; but you must be careful not to commit all your men to the action until you are sure just where the attack is going to be delivered. Remember, troops under fire can do only one of two things—advance or retire. If you deploy too many men at first, and the enemy attacks from a different direction, you, not having supports to throw into the line where needed, will have to withdraw part of the firing-line to the rear, assemble them, and then deploy them in the new direction—a very delicate operation and one not to be attempted with new troops. It is much safer to deploy a thin line at first, covering the desired front, to make the enemy disclose his intentions, and then, when you are sure that you know where he is going to attack, strengthen your line where needed.

Always keep out a formed reserve as long as possible. When you throw in your last man, you can no longer influence the action or

meet unexpected developments. In general, don't throw in your last reserve until the enemy is preparing to charge. Of course, there may be exceptions to this rule, but it is a good one to follow. Napoleon said: "There is no dogmatic rule in war."

Don't rely on fire action alone to stop the charge; you must be prepared to stop the enemy with the bayonet if your fire doesn't stop him. Teach your men this and impress them with this fact.

The distance of the supports from the firing-line, on the defensive, will depend entirely upon circumstances. They should be as close to the firing-line as possible, provided they can secure good cover, so as not to suffer from the enemy's fire. If natural cover is not available, you will have to construct artificial cover (trenches). If there is no natural cover for the reserve available and there is not time to construct cover, it is better to throw the supports into the firing-line at once than to allow them to be exposed to losses without being able to inflict corresponding losses upon the enemy.

When deploying for defense, sections of the line must be assigned to units, companies, or platoons, and they are charged with the duty of covering this section.

The range is estimated to objects in the front (measured preferably, if time permits), so that the defense will know the correct range from time to time as the enemy advances. For example: we have a small creek in our front; we find that the range to it is 750 yards. Good. When the enemy arrives at the creek, we know exactly what the range is and can in consequence open an effective fire upon him. Having found the range to different objects in your front in a like manner, you should be able to keep the enemy under an effective fire during his entire advance.

Where important dead space lies in front of one section, an adjoining section should be instructed to cover it with fire when necessary, or machine guns should be concealed for like purpose.

Advanced posts or any form of unnecessary dispersion should be avoided.

Do not hesitate to sacrifice the command if the result is worth the cost. The defense of the Liège forts is a good example.

When the line to be occupied is somewhat extended for the number of troops which are to occupy it, it is better to leave gaps in

line, between subdivisions, than to attempt to cover up the entire line by a continuous thin skirmish-line. Your fire, if properly distributed, should be as effective, and you avoid undue dispersion and consequent loss of control.

I will illustrate what I mean.

Defensive Line.

Platoon — gap — Platoon — gap — Platoon

——— Support

Remember, in the defense as well as in the attack you must assign a sector of the front to each subdivision, which it must cover with its fire. Make use of natural objects in your front to define the limits of the sectors of fire assigned to subdivisions. These objects may be a white house, a lone pine tree, a stream, a peculiar colored rock, etc. This is absolutely essential to provide for the entire front being covered by fire.

Your men must be taught to aim and fire as carefully at the crest of a line of hills, a grove of trees, or at a fence as they would if firing at a well-defined and clearly-seen target. Remember, in war you will rarely see the enemy. You must learn to shoot at a locality.

A section of the enemy's line not covered with fire is a section that is shooting with peace-time accuracy. You cannot stop an advance that is shooting like this. In the attack you cannot advance against a line that is delivering a fire of this kind. You must obtain superiority of fire before you can advance or before you can stop an advance of the enemy against your line. You will never be able to secure superiority of fire unless the target is carefully divided among your subdivisions, and each one covers its sector with a well-directed and delivered fire.

You have all heard much about fire discipline. There is no such thing as fire discipline. What you must continually strive for is **discipline**—discipline on the march, discipline in camp, and discipline everywhere and all the time. Then, and not till then, will you have discipline on the battle-field. When you have this, you

will have fire discipline, and not before. If your men are not disciplined in camp, they will not by some magical change acquire it on the battle-field, and you will not be able to control your fire, through lack of discipline. Discipline means absolute control over your men at all times. Strive for it and work for it continually. Your command is worthless without it.

The supply of ammunition will usually be more plentiful on the defensive than when you are attacking, but this fact will not relieve you from the responsibility of carefully watching the expenditure of ammunition. Officers, sergeants, and especially corporals, must watch this continually.

Remember, it is the number of hits that are made that counts, and not the number of rounds that are fired. A bullet that hits 3 feet in front of the line and one that goes about 6 inches over a man's head have the approximate value of hits, because the man who hears or sees this bullet will not be quite as cool as he was before and his fire will not be as well directed as it was before. There will always be a suspicion in his mind that perhaps the next bullet may not hit in front of the line or go over his head.

You can frequently gain superiority of fire without hitting a man, if your fire is pretty close to the other fellow. When his fire begins to get wild from this cause, his bullets will go higher and higher over your line, and the morale of your men will increase proportionally. Under these circumstances it will not be long before your line begins to make hits.

Watch your flanks continually. They are specially vulnerable in defense, unless resting upon natural impassable obstacles. One platoon on the flank of a regiment will cause the entire line to fall back.

At the battle of Gravelotte, in the Franco-Prussian War of 1870, the fire of one Prussian company of 250 men caused a whole French division to fall back from a position that they had successfully held all day against a Prussian corps, attacking them in front. A good disposition is to place your supports in rear of the flanks to guard against this very maneuver; they can usually meet a flank attack by changing front. Remember, you can't change the front of your firing-line except in very small commands.

Counter Attacks.

Counter attacks are nearly always necessary, but it is very dangerous to attempt them with troops that are not very well drilled and disciplined. You must have excellent control over your line before they can even be attempted. Napoleon said: "The passage from the defensive to the offensive is one of the most difficult operations in war."

I would not advise new troops to attempt counter attacks unless made with a fraction of the line, or with supports or reserves, which have not been engaged.

Combat Patrols.

Don't forget your combat patrols. They must be used in defense as well as in the attack, and in this case they are of equal importance. They must be well out on the flanks.

The withdrawal from action might be properly taken up in connection with the defensive, but I prefer to devote a special lecture to this subject later.

LECTURE No. 8.

INTRENCHING AND INTRENCHMENTS.

The history of all modern wars has been that at the commencement the troops do not take kindly to the pick and shovel until they have learned through bitter experience and severe losses that the pick and shovel are quite as important and valuable as the rifle and bayonet. You must therefore insist that your men retain the field intrenching tools to the end. Your officers and sergeants must impress this fact upon your men at every opportunity.

Colonel Carl Reichmann, U. S. Army, military attaché to the Russian Army during the Russian-Japanese War, says in his report: "It may be truthfully said of the Russians, and probably of the Japanese also, that when they do not fight or march, they dig."

Colonel J. F. Morrison, U. S. Army, military attaché to the Japanese Army in the Russian-Japanese War, says in his report on the war: "Great reliance was placed on field intrenchments and their use was very general. Once in the presence of the enemy, the intrench-

ing tool seemed next in importance to the rifle and ammunition. The rule on both sides seemed to be to always cover their positions with intrenchments as soon as taken up, even when held only for a short time."

This is expert testimony from eye-witnesses.

Our own troops in the Civil War learned this lesson well, and became expert in the use of the pick and shovel.

The Bulgarians in their late war with Turkey were experts in the use of intrenchments, and the fact that the Turks were careless and ignorant in this respect had not a little to do with their defeat.

Method of Locating Trenches.

Deploy a thin skirmish-line, with five-pace intervals, and move them forward to the position that it is desired to intrench. Have the men then halt and lie down. Cause each man to crawl forward or back until he finds a place from which he can command all of the ground to his front, being careful to see that there are no hollows in which an enemy might conceal himself and thus be safe from fire. Space of this kind is known as "dead space."

Trenches should never be located on the crest of a hill, as it brings them into relief against the sky-line, which renders them a good target and enables the enemy to locate them easily. The best place is usually some distance in advance of the true crest and at a point from which all of the ground towards the enemy can be covered by fire. This place is known as the "military crest." Have the men then mark this line with their bayonets or preferably with sticks or pegs; this will be the trace of your work, and you will find that, with rare exceptions, this line will not be straight, but will follow the contour of the ground. The line having been marked, commence work on the trenches, and be careful to see that the men follow the line of stakes.

Sometimes it will be impossible to so locate your line that all dead space will be covered without advancing your line too far to the front and thus having weak angles in it. In this case it will be necessary to have the dead spaces covered by some flank section of the line, and the troops occupying them will be instructed to carefully observe these dead spaces and cover them with fire when nec-

essary. Machine guns, carefully concealed, are specially valuable in this respect.

Usually infantry trenches are laid out in company lengths. Remember that, except in permanent fortification, infantry plans and constructs the trenches that it is to occupy.

With the intrenching tools carried by the infantry soldier troops can quickly throw up a low parapet about 3 feet thick that will furnish considerable cover against rifle fire, but scarcely any against shrapnel fire. This form of trench is frequently of great value to the attack that is temporarily unable to continue its advance.

The best form of trench is a deep narrow standing trench, with parapet about 1 foot high and about 5 feet thick. This trench furnishes excellent cover against artillery and rifle fire, and should be used as much as possible.

Trenches should always be concealed by placing sod, grass, brush, or weeds on top of the parapet to make them look as much as possible like the surrounding ground. Don't neglect this very simple precaution.

Intrenchments enable a commander to hold a position with the least number of men and to prolong his line or increase his reserve. They are constructed with a view to giving cover which will diminish losses, but they must not be so built or placed as to interfere with the free use of the rifle. Fire effect is the first consideration.

An excellent form of trench, and one much used by the Spanish troops in our late war, was a deep narrow trench without any parapet. In this case the earth excavated from the trench must be carried away from the trench and scattered, preferably to the rear. This trench, of course, requires more time to construct.

Trenches should be made as comfortable as time permits, special attention being paid to drainage.

Returns or pockets should be constructed for the rears, first-aid stations, ammunition, rations, etc.

When trenches are constructed for the supports in rear, it will be necessary to construct trenches from them to the firing-trench, so that the supports can reinforce the firing-line without exposing themselves. These are called "communicating trenches." These

trenches should be constructed in a zigzag or oblique form to escape being enfiladed by the enemy's fire directed at the firing-trench.

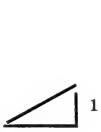
Dummy trenches are frequently of value to draw the enemy's fire and attention and thus protect the true trench.

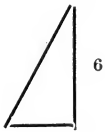
Officers must remember that the trace and profile of trenches are simple matters compared with their correct location and use.

Effect of Weapons.

The rifle and machine gun shoot a bullet whose penetration in earth varies, according to the arm, the distance, and the nature of the soil, from 24 to 40 inches; this last penetration hardly applies except to clay at very short ranges; 32 inches can be considered as the normal maximum.

Shrapnel from field guns fired with a time-fuse has no effect upon intrenchments which have a sufficient thickness to resist a rifle bullet. It can only have effect upon the defenders when the latter are firing. It is powerless when the men are resting behind the parapet, either seated or lying down with their backs to the mass or protected by it under the slope of about 1 on 4. It is usual, in indicating the slope of intrenchments, to use this method—that is, 1 on 4, 6 on 1, etc., meaning a vertical elevation of 1 foot on a horizontal base of 4, or a vertical elevation of 6 on a horizontal base of 1, etc., thus:





The same shell fired with a percussion fuse penetrates rather deeply into the earth of a recently constructed parapet when the projectile falls upon the exterior slope. Upon bursting it may form craters as large as 60 inches in diameter and 20 inches in depth. But when the projectile falls upon the superior slope, it cuts out a furrow of not more than 6 or 8 inches in depth at the most, and carries away but little earth; in other words, it ricochets. Such shells fired against men placed upon the banquette of an intrench-

ment produce but little effect. At 2,000 yards it can hardly be hoped to get more than one man wounded for each shell, even with a perfectly regulated fire. If the men are seated or lying down with their backs to the parapet, the result is practically nothing. That is one of the reasons why you cannot shoot an enemy out of a position; that is also why you have to launch your infantry attack against the trenches to make the enemy man the parapet so as to give you an opportunity to hammer him with your artillery.

Good troops fear artillery fire very little, if they are in proper formation. They say: "It makes a hell of a noise and scares recruits." But may the Lord help you if they catch you in column or in any compact formation. The burial squad will be very, very busy.

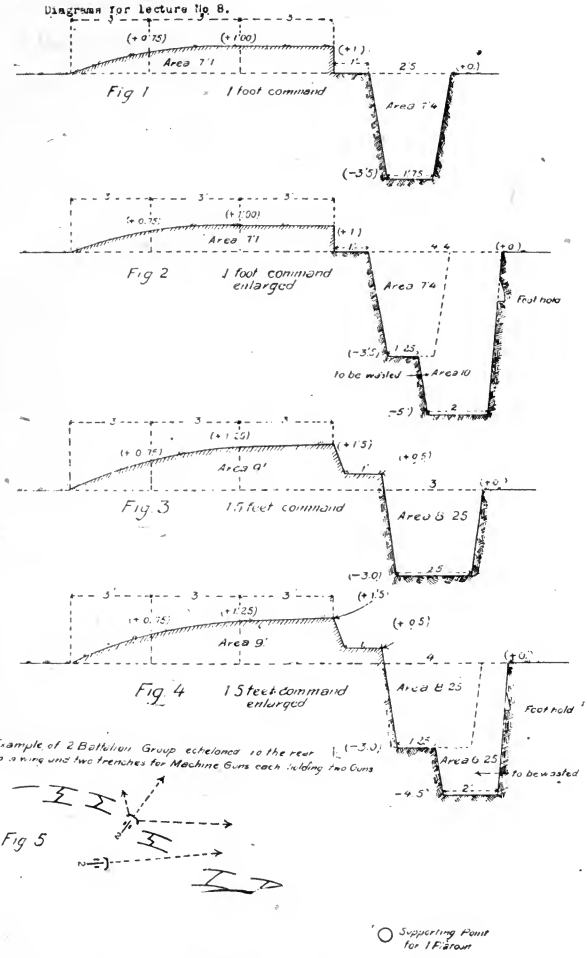
You can see from the above discussion that your trenches must be narrow and deep, with a low, gradual-sloping parapet to make the shells ricochet off and to make them inconspicuous.

The lying-down trench offers concealment, but no cover from shrapnel fire. It has been found by experiment that a man prone offers just as much target to shrapnel fire as one standing. He converts his target into a horizontal one instead of a vertical one without diminishing it. The usefulness of the prone trench is limited to infantry on the offensive which has been checked and must hold out under the enemy's fire. In this case any form of cover is valuable, but this trench should be deepened as soon as possible. This may be done under fire.

Colonel Carl Reichmann, U. S. Army, says in his report on the Japanese-Russian War: "Whenever practicable, the standing trench was employed, as being the best protection against shrapnel fire. The kneeling trench was not employed unless lack of time or the character of the ground made the standing trench impracticable. The lying-down trench I never saw."

I will now illustrate different forms of trenches, which you gentlemen will find in the Infantry Drill Regulations, Field Service Regulations, and the book "Applied Principles of Field Fortifications for Line Officers." Every officer in the Guard should have a copy of the latter book. The former books you, of course, have.

This lecture is not complete by any means, but I don't want to give you too much all at once, or you won't get any of it.



DIFFERENT FORMS OF TRENCHES.

LECTURE No. 9.

DEFENSE OF HOUSES AND LOCALITIES.

When on the defensive with comparatively large commands, such as a regiment or brigade, it is rarely necessary to prepare for attack from more than one direction, or, let us say, your line would be prepared to receive an attack over an arc of about 90 or 100 degrees: This kind of a defensive position was pretty thoroughly covered in Lecture No. 7, which you have already heard. In the defense of houses and localities, however, this rule would not hold good, and you must prepare a house, a farm, a small village, or a hill for all-around defense. These positions are usually so small (comparatively) that they are easily turned; hence the necessity for all-around defense.

An isolated position of this nature would have to be prepared for all-around attack, so some of the trenches and emplacements (if you have artillery or machine guns) would be required to face to the rear, and care would have to be taken to avoid the possibility of receiving fire in reverse. Shelters for the reserves would be necessary in some central part of the position, and these should be bomb-proof, if possible and artillery fire is expected. In any case they should be well concealed. Shelters for supplies, ammunition, etc., would be necessary, and the important question of water supply must be carefully considered and provided for. The position selected for defense would not in such a case necessarily contain within itself the object to be defended. It would hardly ever be possible to find a position that could be defended with a small force immediately around the object, if the latter were a bridge, railway station, water-tank, ford, etc.; it would usually be sufficient if the position commanded the object and approaches at short range. Sometimes it might be necessary to make the defense in the form of two positions supporting each other and both commanding the object.

If the enemy is uncivilized or unprovided with artillery, it is evidently unnecessary to employ the elaborate methods necessary against civilized enemies. Protection against rifle bullets is easily obtained, and neither concealment nor overhead cover are in such

cases necessary. Block-houses and villages, or strong buildings, make good defensible positions in these cases.

For a fortified post in a savage or semi-civilized country a material obstacle is generally essential; so if the work itself does not provide one in the form of a wall or stockade, a strong, independent one in the shape of barbed-wire entanglements or abatis should be provided. A clear field of fire is, of course, imperative, and flank defense should be provided, dead angles being inadmissible. Every fort of this nature should be self-contained; that is, it should contain room for storage of supplies and ammunition and should be possessed of its own water supply.

We will first take up the preparation of houses for defense, and later localities. When selecting a house for defense, if there is any choice in the matter, select one that is cross-shaped, or at least has wings. A cross-shaped house is valuable, because there are no dead angles anywhere; every part of the front is well covered with fire. The doors in such houses are usually located in the re-entrant angles (between the arms), and are easily defended in consequence.

If it is not possible to secure a house in the form of a cross, the next best shape is one with wings or outbuildings. These, when fortified, will provide for the defense of dead angles and the flanks.

A perfectly square house is objectionable, because you have four dead angles—one at each corner. Some provision will have to be made to cover these dead angles with fire. This may be done by constructing sunken block-houses outside of the building, with a communicating trench from the house to the block-house.

Houses which have flat roofs are preferable to those having slanting roofs, because a parapet can be constructed around the flat roof by using sand-bags or boxes filled with earth, etc., and this will give another tier of fire and greater command.

The ideal house for defense is one constructed of adobe. The walls will stop bullets, and shells going through will make a comparatively small hole.

The next best material would be reinforced concrete, then stone and brick. The disadvantage of brick and stone houses is that when a shell strikes them it knocks out stones and bricks. which become projectiles. However, they stop rifle bullets.

The poorest house for defense is one built of wood. It will rarely stop high-power bullets, offers no protection against shrapnel and shells, and there is always the great danger of fire.

Galvanized iron roofs are the best, although they offer comparatively little resistance to rifle bullets or shrapnel, and none against shell. However, when struck there is nothing to fall, and frequently a percussion shell will go through without exploding.

A tile roof is the least desirable. It is always heavy, the tiles frequently become projectiles when struck, and there is always the danger of the roof falling in on you.

Plank roofs covered with rubberoid or similar material are dangerous on account of splinters.

Shingle roofs are bad on account of the danger of fire, but there is little danger here from splinters.

An adobe house, then, with a galvanized iron roof, would be the ideal house for defense. However, you will have to make the best of what you have and take your chances.

In preparing a house for defense, first remove all window frames and glass to avoid the danger of splinters, then sand-bag or blanket the windows. (To blanket a window, cut loop-holes in a blanket and nail it over the window. This is done to prevent the enemy from seeing what is going on inside of the house and to prevent the enemy from seeing persons who may pass the windows. It, of course, offers no protection against fire, but is valuable in that it conceals you from the enemy.) Close and barricade all doors (leaving one for entrance and exit) by stacking up sand-bags behind them, or boxes filled with earth, bedding, etc. If artillery fire is feared, shear up all floors with timbers and cover them with 3 or 4 inches of earth to prevent splintering. Provide barrels with water, in the cellar or on the ground floor preferably, and if the house is one that will not stop bullets, pile sand-bags around the barrels to prevent them from being pierced by rifle bullets and thus losing your water. Provide rations, medical supplies, ammunition, etc. Sand-bags will have to be piled around your reserve ammunition if there is danger of its being struck by shells or bullets.

Construct trenches outside of the building. These should be held first, and you should not retreat into the building except as a

last resort. I would not place trenches more than 50 yards from the quilding or closer than 50 feet.

Sēt aside a place in the building for a hospital, and rears should be provided outside and inside of the building; the one inside not to be used except in the last extremity.

A covered way or communicating trench should connect the building with the outside trenches.

If fire is feared in the roof, wet it or cover it with blankets soaked in water.

No cooking or fires should be allowed in the building during an attack. If fires are going in the building when the attack commences, immediately put them out with water, and be sure that they are out.

Every man of the garrison should have a station to which he would repair in case of an alarm, and he should clearly understand just what he should do and what is expected of him.

An officer or non-commissioned officer should be placed in charge of the different parts of the house and the detachment which is to defend that part, and should clearly understand what he is to do.

Always keep a small reserve, to be under the orders of the commanding officer only.

Ranges should be measured to natural objects outside of the house, so that you can keep the attacking troops under an effective fire.

Don't hesitate to sacrifice the command, if the object to be obtained is worth the cost.

If time permits and the material is available, obstacles can be constructed in front of your trenches, using barbed-wire entanglements, broken bottles, and, in fact, any material that will delay or embarrass the enemy's advance.

In the Philippines we made a most effective obstacle by placing a belt of broken beer-bottles stood on end, about 4 feet wide, in front of houses or trenches which it was necessary to defend. This belt of broken glass has stopped many a charge and has enabled many a small garrison to resist successfully an attack that otherwise would have been pushed home. It cuts their feet all to pieces, and troops simply cannot charge over it.

An excellent method of using barbed wire, and one much employed by the Spaniards, is to unreel four or five lines of barbed wire in the grass, without fastening them to stakes or anything; these lines should be about 3 feet apart. In charging over this obstacle, some man is sure to get his foot caught in a strand of wire; this raises it and, of course, everyone else immediately gets hung up in it. The wire must be concealed in the grass, so that it will not be seen until the troops get right on it.

High and low wire entanglements are, of course, formidable, but they require a certain amount of skilled labor and require considerable time to construct properly.

Planks filled with spikes, small pits with a sharp stick at the bottom, and many other forms of obstacles may be constructed, but ordinarily they would only be used in semi-permanent fortifications, on account of the time, material, and skilled labor required, so I will not deal with them here.

In defending a village, employ the same principles that I have enumerated above. You would prepare several houses for defense at commanding points, barricade the streets, clear the ground to secure a clear field of fire, and locate your supports and reserve so that they can reinforce the line as required. Unless the village is in the general line, you will have to prepare it for all-around defense. Orchards can be cut down and abatis constructed from the felled trees. To construct an abatis, fell the trees, strip them of all leaves and twigs, sharpen the branches, and place them towards the enemy. The trees should interlock and be staked down, so that the enemy cannot pull them out of the way easily. An abatis is of little value unless it is about 4 feet high and at least 5 feet thick. This form of obstacle is very effective, but requires considerable time to construct properly and it is of little value unless it is constructed properly.

In defending localities, employ the general principles governing the location of trenches and defensive positions, houses and villages, as far as they may be applicable.

If you gentlemen care to study this subject further, you may find what you want in the Manual of Field Engineering, U. S. Army, and the Engineer Field Manual, U. S. Army.

I neglected to mention that houses which have porches or over-

hanging galleries are specially valuable for defensive purposes, as these porches can be sand-bagged and have loop-holes cut in the floor of the porch or overhanging gallery, which will enable you to cover the dead space between windows and doors with an effective fire. Nearly all Spanish, Mexican, and Central American houses have these overhanging galleries.

LECTURE No. 10.

TRAINING FOR BATTLE.

Paragraph 1, Part I. of the Infantry Drill Regulations says: "Success in battle is the ultimate object of all military training; success may be looked for only when the training is intelligent and thorough."

You gentlemen of the National Guard have a very limited time in which to give your men this training. It is therefore necessary that you devote what little time you have to absolute essentials. Now, what are the essentials? That is a question that has been asked me by scores of National Guard officers and they have doubtless asked themselves the same question hundreds of times. The object of this lecture is to try to assist you in answering that difficult question. I believe that the essentials are:

Precise close order drill; not too much, but what you have must be snappy and very exact. You are wasting your time unless it is snappy and exact. The object of close order drill is to impart discipline to your command. It was discovered centuries ago that this was the best method of disciplining an army.

The next essential is a thorough training in extended order drill. This is not for disciplinary purposes, but it is to teach you and your men how to maneuver on the battle-field. You must know this thoroughly; you must know it so well that it will become a firmly fixed habit. When a command is given, there must be no hesitation, no delay; the movement must be executed instantly. There must be no confusion; every man must know where he belongs, where he is to go, and exactly how he is to get there.

The basis of this drill is the squad. This is the little group upon which the whole structure is built. It follows, therefore, that your

squad training must be thorough and your corporals must be efficient. If your squads are efficient, your company will be efficient; if they do not know their drill well, you cannot maneuver your company.

The tendency in all National Guard organizations is to try to go too fast. They slight squad drill because they do not appreciate its importance. If men can get around fairly well in the squad, they are satisfied. Now, gentlemen, this won't do. There must be no "fairly well" about it. It must be done **exactly right.**

Now, don't expect the same precision in extended order drill that you have in close order drill; we don't need it; it is not necessary; but what we do need, and what you must insist upon and continually strive for, is that no man gets lost. He must know where he belongs at all times and under all circumstances. When you have attained that standard, you are efficient; until you do, you are not.

Remember, there is no such thing as confusion in extended order drill where every man knows exactly where he belongs, without asking some other man or stopping to look around. A man may be a little late in getting into his place, but if he knows where he belongs and is getting there as fast as he can, that is all right. Controlled disorder ceases to be disorder.

Your company must be so well drilled that, no matter what formation they are in or how they are facing when the command "As skirmishers, **guide right, left** or **center**" is given, every man must know where he belongs and he must proceed to get there as soon as he can. It does not matter whether you have the right or the left or the flanks in the center, the command **"Guide right, left** or **center"** tells you where the base squad is and you must deploy on it. Your men will never know where they belong in the company until they know where they belong in the squad. The corporal commands, "Follow me," and he will lead them where they should go; when they arrive there, they will deploy on him.

The third essential is target practice. Now, this doesn't mean that every man must be an expert rifleman; it is sufficient if he is a first-class shot. An expert rifleman who is not disciplined and not well trained in extended order drill is of less value on the firing-

line than a third-class shot who has discipline and knows his drill, and I will tell you why. Fire in battle must be directed and controlled. If your expert rifleman is not disciplined, you will not be able to get him to shoot where you want him to and you can't get him to use the kind of fire you want. The mere fact that he is an expert rifleman does not endow him with these qualities. The fire of an entire company of 150 men, all expert riflemen, but all firing at a target that each man has selected for himself, and each man using the fire that he thinks appropriate to the occasion is less effective than the concentrated, directed, and controlled fire of one platoon of second-class shots. Now, this sounds pretty strong, but let us see. We have the enemy in front of us, but we can only see about fifteen men of his line. All your undisciplined experts will shoot at these men; they will probably hit them all in a few rounds, but the men, although shot, will continue to lie in the same place, and your experts will continue to shoot more bullets into these fifteen dead men. Now, what are they accomplishing? Absolutely nothing. In the meantime that part of the enemy's line that cannot be plainly seen, and consequently is not having a shot fired at it, is lying along there doing target practice shooting. You want to direct your fire where you think the enemy probably is, but you cannot because your men will not do as they are told because they have no discipline. Now, if these men won't obey you in the armory, they will not do it on the firing-line.

Now, let us see about extended order drill: After much effort, you have gotten your undrilled, undisciplined men on the line, and the enemy launches an attack against your flank. What are you going to do? You can't maneuver, because your men are not well drilled. I will tell you what you will do: You will all "beat it." Now, if you have third-class shots who are disciplined and know their drill, you will be 100 per cent better off than you would be with this bunch of experts who can't drill and will not do what they are told. If you doubt this, assume yourself in action with a civilian rifle club. Now, don't misunderstand me; I am not decrying the value of musketry training, but you must have discipline and drill in order to make the best use of it on the battle-field. These three essentials go together; your company is not efficient until you are well

trained in all three, but don't neglect any one for the others. You must divide your time between all three, and not devote too much attention to any one because it is your hobby.

Now, I have enumerated what I believe to be three essentials in training for battle for the National Guard. In the regular Service we have more than three, but I don't believe that you gentlemen have the time to devote to anything more than the three enumerated above. If you make good in these, you will learn the rest in campaign in a short time by association with regular troops; but if you are not proficient in these three, you will be slaughtered on the battle-field before you have time to learn them. I will now take them up in the order enumerated, and endeavor to give you an idea of how much time you can devote to each.

First, your reccruit must have a thorough and systematic course in close order before he is allowed to take his place in the company. You gain nothing by placing him in the ranks of the company too soon and it has the disadvantage of keeping your other men back, because he "balls up" the formations, and you continually have to correct him and come back to squad drill for his benefit. This disgusts the other men and they lose interest in drill and will "beat" the next one if they can.

After your men are proficient in squad drill, it is sufficient if you drill them for twenty minutes in close order drill in teaching them company drill. A close order company drill of more than twenty minutes is, I believe, too long. The men lose interest. But make your drill sharp and snappy, although short. After your men are proficient in company close order drill, ten minutes of sharp close order will be sufficient each drill-night. This should be given first. In the regular Service we give this drill first and last, but you gentlemen cannot spare that last ten minutes; you have too many other things to learn.

Now, don't waste time on Butts' Manual. This drill is excellent if you have the time to spare, as we have in the regular Service, but you can't hope to have it more than once a week, and given that way it has little value; besides, you can't spare the time.

Bayonet exercise, an essential which belongs to close order drill, although not given for disciplinary purposes, but to teach a

man to fight with his bayonet, will harden their muscles sufficiently if they need such training.

Now we come to extended order drill. Devote every moment that you can spare from close order drill and target practice to it, and that will be little enough; but don't slight the others.

As to target practice, if you can have men shoot the gallery course and the range course once a year, you have done all that can reasonably be expected of you. Just before I was ordered down here, I was on duty with the National Guard of Utah, and they had a scheme for target practice that appealed to me as excellent. They have the same trouble in getting their men for target practice that you have, and they have solved the problem in this way: in their yearly camp they devote every afternoon to range practice. They manage somehow to have their men shoot the gallery course in the armories. They drilled all morning in camp in extended order drills and battle exercises and shot all afternoon. It was pretty strenuous, but I did not hear a kick from anyone. The result was satisfactory, and was much better than having the men lie around in their tents.

Now I am going to take up fire control, fire direction, and fire distribution. Fire control requires discipline; without control, you can't direct it; if you can't direct it, you can't distribute it; if you can't distribute it, your fire will not be effective and you will never attain fire superiority; if you can't secure fire superiority, you will never be able to advance in the attack or stop the enemy's attack in the defense.

Now, what is fire control? Fire control implies a perfect command over your firing-line. You must be able to commence firing, cease firing, use clip or volley fire, without the slightest delay or confusion. You must be able to increase or diminish the rate of fire at will. When you are able to do all these things, you have fire control.

Now, what is fire direction? Fire direction implies the ability to direct the fire of your unit upon any target or locality that you wish. Your men must be so well trained that they will shoot at the object indicated, whether they can see any signs of the enemy or not. You must be able to shift your fire from one locality to

another without delay or confusion. Before you can accomplish this object, you must be able to clearly describe the target or exact location of the locality at which you wish to shoot to the men of your command without it being necessary to point out the location to each man individually. This direction must be so clear that it will be readily understood by each man in your command. This necessitates the cultivation of your descriptive powers.

Now, what is fire distribution? Fire distribution implies that the entire target is covered with a well-delivered and directed fire. This distribution must be so complete that no part of the target is slighted in the least degree. It implies that the least visible portions of the target are covered with an as effective fire as those parts which are plainly visible. Remember that a section of the enemy's line not covered with an effective fire represents a part of the enemy's line which you are allowing to fire with peace-time accuracy. No line can withstand a fire of this kind. Now, why is this so? I will tell you. It has been found by careful computation and experiment that when a line are firing with peace-time accuracy, they make a certain per cent of hits; it has also been proven that when you open an effective fire upon this line, their fire drops off in accuracy from one-fortieth to one-seventieth (authorities differ a little bit on the proportion). Now, to illustrate this, let us assume that the firing-line not under fire is firing with an accuracy which gives them 280 hits per minute. (This is merely to illustrate the proportion, remember.) Now, when you subject this line to an effective fire, their hits drop off from 280 to 7 or 4. Let us take the highest number, 7. Now, you see what this means—you have gained fire superiority, and you can advance. But suppose your fire is not distributed evenly along the enemy's entire line—say, for the sake of argument, that half of their line is not covered with fire at all; this part of the line is shooting with an accuracy which gives them 280 hits. It is true that the part of the line at which you are firing is only making about 2 hits per minute, being under the concentrated fire of your entire line; but as half of the line is not under any fire at all, the average for the entire line is 280 plus 2, which equals 282, and this divided by 2 gives you an average for the entire line of 141. Now, no troops on God's green earth can advance against any fire like

that. Now you can see why fire distribution is absolutely essential. You have got to bring the average for the entire line down to 7 before you have a ghost of a show.

Now, how do we get fire distribution? We get it by dividing the entire enemy's line into sections and by assigning a section to each subdivision in your firing-line. How is this done? The colonel divides the target between his battalions, the majors divide their sector between their companies, the captains divide their parts between their platoons, and the platoon commanders divide the part assigned to them between their squads. It is very simple, but it requires lots of practice before you can do it well and before you can describe your section to your men so clearly that there will be no chance of mistakes. Now, it is not necessary to have a company out at drill in order to practice this. You gentlemen can do it whenever you get out in open country, or even when you are passing a vacant lot. Say to yourself: "The enemy is over there, and I want to divide his line so that it will be covered by the fire of my four platoons; what sector will I assign to the first platoon? what to the second?" and so on. Practice this whenever you get the chance.

Now, all this brings up another question: Before you can control these men on the firing-line, you must have a system that will work—not one that will work here on the armory floor, but one that will work under all conditions on the firing-line. This system must be one of signals.

Usually you go out to drill and you will see a major running up and down the firing-line giving orders to captains verbally; you will see captains going up and giving orders to their platoon commanders and occasionally correcting a private personally; platoon commanders doing the same thing. Now, that won't work under battle conditions. A verbal command cannot be heard five yards when the whole line is shooting. A man—any man—who exposes himself by standing up or kneeling in rear of the firing-line will last about five seconds before he is killed or wounded. It is absolutely impossible to move back and forth in rear of the firing-line in action. Now, don't forget that. That being the case, how are we going to control the firing-line? We have got to control it by signals, and

by signals alone. You will find these signals in the Infantry Drill Regulations, Paragraphs 41 to 47, inclusive. You have got to memorize them thoroughly. You can't do anything without them.

Now let us see how this works out in action. When the battalion is ordered forward into action, the major will call up his company commanders and repeat his instructions to them, so that all will know the plan if he is killed and so that all can endeavor to carry out the plan intelligently; he assigns certain companies to the firing-line and certain ones to the support, and tells each captain what he is to do and what is expected of him; he divides the target between the companies to compose the firing-line and orders them to move out. Captains return to their companies, explain the situation to their lieutenants, and tell the men enough so that they can help to carry out the plan; divide the target between their platoons, give them the range at which fire is to be opened, and start the attack forward. Platoon commanders divide the target between their squads, open fire at the proper time, and control the fire. Remember, captains direct the fire, but platoon commanders control it—that is their job. Sergeants and corporals assist the platoon commanders in this control. The corporal must see that his men set their sights properly, fire at the object ordered, and employ the kind of fire indicated—that is his work, and in order to accomplish this successfully he must be on the job every second. Now you begin to see how important it is that you have efficient squad leaders. Let us see just how this system works out on the firing-line:

Platoon commanders are in rear of their platoons, captains are in rear of their companies, the major is in rear of the firing-line about 150 yards or so and between it and the supports. He has his sergeant-major and a musician with him; he may have an orderly or two also. Remember, the platoon commander has his platoon guide at his side, the captain has his two musicians, and the first sergeant, if he is not in command of a platoon. Now, the major wants the line to advance; he blows a blast on his whistle to attract the attention of the company musicians, who look back to see what he wants—he wants the line to advance, so he signals "F." The company musician repeats back the signal (remember, all signals are always repeated back when understood), then turns to the cap-

tain and says: "The major signals 'F'." The captain blows a blast on his whistle to attract the attention of the platoon guides or the platoon guide of the platoon to which he wishes to give orders, points at him, and gives the signal for **platoon rush.** The platoon guide repeats back the signal, and then turns to his platoon commander and says: "The captain signals **platoon rush.**" The platoon commander blows a blast on his whistle to attract the attention of his squad leader, who, upon hearing it, ceases firing (not his squad, but he alone), looks back, gets the signal for **suspend firing** and **rush,** repeats it back, causes his squad to suspend firing and be ready to go forward at the platoon commander's command. When all is ready, the platoon commander commands, "Follow me," and, running at top speed, leads the platoon to its place in the new line. To halt the platoon, he gives the signal for halting and then gives the signal for firing.

You see how simple it all is. But Napoleon said: "All things in war are simple, but the simplest things are difficult." You will find this to be very, very true.

Now you see why so much extended order drill is so necessary. You have got to know these things so well that they will become a habit.

Reinforcing the Firing-line.

Now I am going to take up another very important matter—that of reinforcing the firing-line.

Paragraph 226, Infantry Drill Regulations, says: "A reinforcement of less than a platoon has little influence and will be avoided whenever practicable."

The firing-line needs a good reinforcement or it needs no reinforcement. Sending a squad or two into the firing-line has little appreciable effect. Now, why is this so? Let us review the causes which render the reinforcing of the firing-line necessary. We reinforce the firing-line when we wish to increase the density of our fire; we reinforce it when the line has suffered losses which have reduced its fire materially; we reinforce it when the line has been subjected to a severe fire and when its morale has been impaired in consequence. It is not necessary that the line should have suffered severe losses; the fact that they have been exposed to a heavy fire

frequently is enough to demoralize them, especially if they are "green" troops. A reinforcement joining the line at this time often will have a most beneficial effect. It encourages the men, and often will cause those on the line to recover their nerve and settle down and do good work. We reinforce the firing-line when we want them to go forward and when it is difficult to get the men to leave the ground and rush. A reinforcement coming up from the rear will often carry the line forward with it to the new position. We reinforce the line when it is necessary to replace losses.

In any of the above cases you will see how little effect a reinforcement of a squad will have.

Now the next question is, "How should these men join the line?" They must go in wherever there is a gap or an interval in the line; one man here, four men there, six men some other place—wherever there is an interval. The firing-line cannot leave exact gaps, in which you can place an entire squad or platoon. If they can maneuver like that, they are all right and don't need reinforcing. Of course, when you come up on a flank, you can preserve the integrity of your units; but that will be the exception. The rule is, You will go in wherever there is an opening.

Paragraph 375, Infantry Drill Regulations, says: "When the men of two or more units intermingle in the firing-line, all officers and men submit at once to the senior."

Now this method naturally suggests the question, "Won't there be confusion unutterable if this is done?" It should not, and I will tell you why. The original platoon and squad divisions were in the line before it was reinforced, were they not? Well, they are there yet. There has been nothing to change them. When the reinforcement joins the line, it goes in wherever there is a hole, and consequently you reinforce the squads and platoons that need it the most. Now, the men joining the firing-line don't know where these divisions are, but the men on the firing-line do. Jones knows that he is the left of the first platoon, and Smith knows that he is the right of the second, etc. Now, when the first platoon is ordered forward, Jones goes with it; Smith does not, because he belongs to the second. Now suppose you have placed three men in between Jones and Smith—what will they do? We have answered that question in the 21st Infantry

by making the rule that men joining the firing-line always go forward, when a rush is ordered, with the men on their right. Now, this rule will take the three men between Jones and Smith, and after that the third man on the left of Jones knows that he belongs to the first platoon. The same thing works in the squad. You see how simple it is; but your men must know this so thoroughly that it will be a habit.

If an officer or non-commissioned officer coming up with reinforcements sees that he is senior to the man commanding a platoon, he takes charge at once and the other man will act as his assistant.

Now, do you begin to see why we officers of the regular Service insist upon so much drill and discipline? It is not for show; it is not because we officers think that we are so much better than the other fellow; it is not for the glory of having men salute you and to have the fun of ordering them around; it is simply that we have learned by years of experience that you can't do anything without it.

If you are going to play this game, you have got to play it right; there is no middle course.

I intended to make this lecture very much longer than it is, but, reading it over, I came to the conclusion that I had better quit right here. There is lots more that I could tell you, but if you get the things down pat that I have explained to you in this lecture, I will be more than satisfied, and then I will have another one for you.

There is no such thing as learning this game. The further on you go the more you will see that there are lots of things yet to be learned.

I have frequently heard officers and men say that drills are monotonous. They can be made so if you have never learned squad drill correctly and consequently cannot get away from it; but if you have a good foundation, there is no limit to the things before you.

You can study this game for years and never have to reread a book.

I will be glad to answer any questions.

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